

UNIVERSITY
OF MICHIGAN

APR 1951

BUSINESS ADMINISTRATION
LIBRARY

Sec 13

Accounting Reviews

Cost Accounting Versus Cost Bookkeeping

HERBERT F. TAGGART

**Reserves and Retained Income
Committee on Concepts and Standards**

Clarifying the Balance Sheet

STEWART YARWOOD McMULLEN

Business Profit and the Price Level

RUSSELL BOWERS

Trends and Problems in Governmental and Institutional Accounting

OSCAR S. NELSON

Measurement of Profits for Executive Decisions

JOEL DEAN

The Audit Report

I. B. McGLADREY

Cost Allocations and the Design of Accounting Systems for Control

MYRON J. GORDON

A Course in Accounting Theory

ROBERT E. WALDEN

The Relationship Between Accounting and Management

JOSEPH A. MAURIELLO

Accounting for Joint Costs

HAROLD G. AVERY

The Intermediate Course in Accounting

R. K. MAUTZ

Annual Report

APRIL

1951

THE JOURNAL OF ACCOUNTANCY

Offers Special Rates to Instructors and Students

The Executive Committee of the American Institute of Accountants has authorized a 50% reduction in the regular subscription fee to THE JOURNAL OF ACCOUNTANCY for all *students and instructors* of accounting. Full one year subscriptions at \$3 (regular rate \$6) will be accepted from all students attending recognized schools and from all full-time instructors. (Effective January 1, 1951.)

Instructors who plan to use THE JOURNAL OF ACCOUNTANCY in their class room work are urged to write for special subscription blanks. A supply will be sent promptly.

THE JOURNAL OF ACCOUNTANCY includes a Students Department in each issue. This monthly feature is edited by Robert L. Kane, Jr., CPA, formerly Associate Professor of Accounting at the University of Mississippi and Boston University and now Educational Director of the American Institute of Accountants.

Also of interest to both student and teacher are these regular departments:

Current Accounting and Auditing Problems
by Carman G. Blough, CPA

The Tax Clinic by J. K. Lasser, CPA

Current Books and Articles

Technical and Professional Notes



THE JOURNAL OF ACCOUNTANCY

Official Publication of American Institute of Accountants

270 Madison Avenue

New York 16, N.Y.

T

I

book
draw
page
stat
keep
soph

cons
dire
alon
of a
acti
keep
acti
inte
ing
crec

O
not
sam
it h
and
in i
fun
cou
cor
pre
as
and
cos
par

The Accounting Review

VOL. XXVI

APRIL, 1951

NO. 2

COST ACCOUNTING VERSUS COST BOOKKEEPING

HERBERT F. TAGGART

*Professor of Accounting and Assistant Dean, School of Business,
University of Michigan*

IN THE EARLY PARAGRAPHS of most elementary accounting texts one will find definitions of accounting and bookkeeping and a careful distinction drawn between the two. For example, on page 4 of Mason's second edition it is stated that "accounting includes bookkeeping but is a broader and more philosophical subject." Bookkeeping is usually considered to be a purely clerical function, directed by the accountant and proceeding along lines laid down by the requirements of accounting. Accounting includes many activities beyond the scope of the bookkeeper. The most distinctive of these activities relate to the presentation and interpretation of the results of bookkeeping for the benefit of management, owners, creditors, and the general public.

Cost accounting textbook writers do not seem to find it necessary to draw the same distinction. Perhaps they feel that it has been done in the elementary courses and needs no repetition. Cost accounting, in its broadest sense, includes four major functions. These are: devising cost accounting systems and procedures; recording cost data, or cost bookkeeping; preparing forecasts of costs which serve as the basis for planning and budgeting; and presentation and interpretation of cost data, including the making of comparisons between cost data derived from

one source and those derived from another such as comparisons between actual and expected costs.

Although most accountants would agree that some such distinction as that described above does exist, it seems clear that many of the controversies and points of difficulty reflected in recent accounting literature could be resolved if the writers were to keep in mind the distinction between the purely recording function of the cost accountant and his function as reporter, interpreter and forecaster. Many misunderstandings could be avoided if both parties were clear whether the discussion related to bookkeeping or to other functions of the cost accountant, and the college student of cost accounting could orient himself better with respect to the problems in his textbook and his class if he could be sure whether they related merely to the clerical procedures for recording costs or whether they were of a more fundamental character.

For the teacher, the distinction between cost bookkeeping and cost accounting is important principally as a basis for putting into their proper perspective the several matters which are dealt with in the cost accounting course or textbook. There is a temptation to spend most of the time in the classroom on details of cost bookkeeping, and to upgrade the relatively simple

rules of good cost bookkeeping into principles of cost accounting. Bookkeeping procedures are concrete and easily illustrated. Teacher and class can sink their teeth into them. Visual aids can be used. Problem and test materials are easy to procure or devise. Definite conclusions can be reached. In many cases the comforting proof of double-entry balance is available. For these reasons most of the time in the classroom and most of the space in textbooks is taken up with bookkeeping detail.

Illustrative of purely bookkeeping matters are such topics as the several methods of arriving at cost inventories—FIFO (but not LIFO), averages, specific lot costs, and so forth; methods of cost accumulation, such as process costs, job costs, and the like; the varieties of overhead rates—estimated vs. actual, plant-wide vs. departmental; labor-hour, labor-dollar, machine-hour; the degree to which identification of direct costs is undertaken; the treatment of overtime, shift premium and other accompaniments of labor cost. Make no mistake: these are important subjects, and deserve extensive consideration. The student should be aware of the variations in bookkeeping techniques and of the considerations which dictate the use of each in particular cases. What must be avoided is for the student to leave the cost accounting classroom with the impression that these techniques are the sum and substance of cost accounting—that cost bookkeeping is somehow an end in itself. To be equally avoided is the kind of text and instruction which treats a fundamental change in accounting theory or principle as merely an alternative bookkeeping procedure.

The only theme which might be called a "principle" which should run through all discussion of cost bookkeeping is that of economy in bookkeeping effort, insofar as economy is compatible with sufficient

accuracy to serve the uses to which the bookkeeping results are to be put. Occasionally special considerations may dictate uneconomical bookkeeping methods, as in the case of CPFF government contracts, but for the most part the getting of reasonably reliable figures with a minimum of effort and expense is the primary aim.

Even the much-debated question of whether or not standard cost figures should get into the accounts is largely a bookkeeping problem. It should be answered in terms of whether or not the booking of standard costs simplifies bookkeeping procedures and does not result in too much detail in the accounts for the reconciliation of actual and standard costs. The development and uses of cost standards, incidentally, are not bookkeeping matters at all. They relate to the cost accountant's other activities.

In this same category is the problem of whether or not to tie the detailed manufacturing cost records in with the general books. An affirmative answer on this one is taken almost for granted by most textbook writers. The most recent text, that by Devine, does not even mention the possibility that cost records might be divorced from the double-entry system. If the question is discussed at all, writers seem to feel that the case for such a tie-in is self-evident. Only by fitting the cost records into the double-entry system can there be assurance that the cost accounts are accurate. The attainment of arithmetical accuracy is necessary if the cost records are to be respected by the management.

Questioning this assumption may be heresy, but the separation of detailed cost records from the general accounts would serve to free the cost accountant from bonds which sometimes embarrass his freedom of action. For example, estimates, approximations and round numbers

would
count
double
swere

Mo
accou
freque
shoul
does
capac
Thus
break
mater
depre
foreca
be de
figure
agree
which
histor
the g

Be
of pr
uses,
are c
accou
recor
data
prop
by m
total
of th
point
them
neces
such
cost
prac
the s
his t
purp

Si
tiem
neces
chal
littl
pers

would in many cases serve the cost accountant's purpose, but the tie-in with the double-entry system requires exact answers and penny balancing.

More importantly, however, the cost accountant is sometimes hampered by the frequently accepted proposition that there should be consistency between what he does on the books and what he does in his capacity as forecaster and interpreter. Thus an accountant who would like to break away from actual unit prices for materials and labor, or original cost for depreciation computations when he is forecasting or making cost estimates may be deterred from doing so because the figures thus derived would not be in agreement with the bookkeeping figures, which are normally maintained on the historical cost basis in order to tie in with the general accounts.

Because it is obvious that, for purposes of prediction and for other managerial uses, historical, average and total costs are often not appropriate, and because accountants cling to the notion that cost records and other presentations of cost data should be consistent, it is often proposed that cost records should be kept by methods which do not reflect historical, total, or average costs. I shall discuss some of these proposals later. What I want to point out now is merely that many of them can be attributed to the belief in the necessity for consistency. Actually, no such necessity exists, and the sooner the cost accounting student, teacher and practitioner divests himself of this idea, the sooner he will be in a position to devote his time and energies to the really useful purposes of cost accounting.

Since the consistency idea and the tying-in are to some extent related, the necessity for tying-in may also well be challenged. Cost records themselves are of little use to management. Management personnel spend little time peering over

the shoulder of the cost accountant, studying his ledgers and his underlying papers. The cost accountant serves management by means of reports, certain parts of which may be drawn from records, but a large and vital part of which come from sources outside of the books. In general, the management does not know or care whether the portions of cost reports and other compilations which come from the books tie in with the general accounts or not.

It is doubtless true that tying the cost records in with the general books produces more accurate cost inventory figures for materials and supplies, but the same can hardly be said for work in process and finished goods when it is realized that cost figures for these are dependent on following particular methods of cost accounting and overhead allocation. If these methods were changed to others equally acceptable, quite different cost figures would result. Furthermore, the advocates of LIFO, of cost or market whichever is lower, and of the use of standard costs for inventory valuations have shown how easy it is to abandon the book cost of all inventories whenever such a step is agreeable.

It may be concluded that if the clerical expense involved in reconciling cost controlling accounts with the detailed underlying records becomes burdensome, a simple solution is to abandon the attempt. No great harm will be done. Some companies have adopted the very sensible principle that such reconciliations need be only approximate, thus weakening, if not effectively destroying, the tie-in. More moves in this direction would do no harm to cost accounting as an effective management tool, and would go far toward freeing the accountant from the stigma of being a sort of walking adding machine, whose sole concept of his function is that he is supposed to make everything balance.

As I have previously intimated, it is

my feeling that there is a relationship between the distinction between cost accounting and cost bookkeeping and some of the controversies concerning costs which have occupied a good deal of space in the accounting journals in recent years. Consider how frequently articles have appeared with titles like the following: "Interpretation of Income in a Period of Inflated Prices." "Mismatching of Costs and Revenues." "Consistency and Changing Price Levels." "The Traditional vs. the Cost Accounting Concept of Cost." "LIFO as a Method of Determining Depreciation." "Replacement Value of LIFO Inventories Should Be Disclosed in Balance Sheet." "Disclosure of Current Value of LIFO Inventories Is Not Normally Useful." "Cost Basis in Accounting Must Be Used or We Upset the Whole Business System." "Depreciation on Current Values in Half as Much Again." "We Are Dragging our Anchor—The Drift from Historical Cost." "How Do We Stand with Inflation?—A Defense of Conventional Accounting." "What Is Accounting Accounting for—Now?" "Direct Costs as an Aid to Sales Management."

This list of titles could be extended indefinitely, but enough have been cited to show that many accountants are thinking about what the accountant ought to do to recognize the changing value of the dollar and whether proper treatment has been given to costs which do not fluctuate with business activity. The specific practices under discussion are LIFO and some of its variants, depreciation on replacement cost, and the substitution of something like marginal cost for the total cost which has traditionally been considered proper for inventory and other purposes.

The last item is considerably the least important of the three, but it is perhaps the best example of a confusion between what is desirable cost information for certain purposes of management and what

is acceptable cost bookkeeping. The problem of what to do about fixed costs has always plagued the cost accountant. If he accepts costs as they come, and adheres literally to the actual cost concept, he is confronted by unit costs which fluctuate with output—high when production is low and low when it is high. Such costs are likely to mislead management and are generally unsatisfactory. If the cost accountant adopts some means of leveling burden rates, he must decide difficult questions of the production level to be considered normal and must deal with the problem of disposing of or accounting for under- and overabsorbed burden.

On the other side of the picture is the unquestioned usefulness of the marginal or incremental cost concept when dealing with many managerial questions. The principal characteristic of the marginal approach is that it puts fixed costs off to one side and concentrates attention on the variables. What could be more natural than to put these two things together and to come up with the proposition that fixed costs should be left out of the bookkeeping altogether? This at one stroke banishes the problem of fixed costs in production and furnishes the management with much-needed information concerning marginal costs. It has other delightful effects, too. It simplifies the explanation of profit fluctuations, especially those occurring from month to month within the year. It reduces book valuations of work in process and finished goods inventories and has a beneficial effect on personal property tax assessments.

So enticing is this picture that advocates of the procedure have developed accounting theories and terminology to make it respectable. We are told that there are period costs and product costs; that only the latter should enter into product cost computations and inventory valuations; that period costs, since they are phenom-

ena rel
exist
place.
leave n

The
is that
so-call
costs
It is
them
any o
both
produ
as the

Ma
forme
costs
as, fo
meet
crease
add a
or wh
Just
been
forma
much
reason
swing
book
while
of th

I l
paper
on a
the c
some
repla
coun
grou
mad
and
form
resu
on t
He
term
is a

ena related solely to a period of time, and exist whether or not production takes place, should expire with the period and leave no trace on the balance sheet.

The principal trouble with this doctrine is that it ignores the fact that many of the so-called "period costs" are just as much costs of product as labor and materials. It is no more good accounting to leave them out of the reckoning than to omit any of the variable items. The result in both cases is a plain understatement of product costs, and one is as inexcusable as the other.

Management can and should be informed concerning marginal or differential costs whenever such information is useful, as, for example in considering whether to meet price competition, whether to increase or decrease production, whether to add a new product or a new sales territory, or whether to cast off unprofitable lines. Just because management, not having been supplied with differential cost information, may in the past have been too much concerned about total costs is no reason now to cause the pendulum to swing too far in the other direction. Cost bookkeeping should result in total costs, while differential costs should be a product of the cost accountant's other activities.

I have no intention of settling in this paper the complex problems of the effect on accounting of the fluctuating value of the dollar. I merely want to comment on some aspects of LIFO and depreciation on replacement costs as features of cost accounting and cost bookkeeping. As a background for these remarks, it should be made clear that the cost accountant can and should furnish supplementary information of value for interpreting the results of operations if the books are kept on the orthodox, or original cost, basis. He is in perhaps the best position to determine what portion of the profit figure is attributable to changes in the market

price of materials and how much of earnings must be retained in the business in order that the investment in fixed assets may not be dissipated. Furthermore, there is no objection to including current costs and values or expected future costs and values in cost estimates and forecasts. Quite the contrary. The Ford Motor Company cost accountant who refused to put the recent wage increases into his estimates of the cost of making cars during the coming year would deserve to lose his job. Pointing out that the cost records of the past did not show labor costs at the new figure would be no defense. The same is true of materials and other elements of cost. If management wants depreciation included in such cost compilations based on figures other than original costs, the management is entitled to its wishes. As long as it knows what it is getting, and how the figures should be interpreted, there can be no objection. Preparation of such reports falls within the cost accountant's duties as cost forecaster and interpreter.

When it comes to bookkeeping, however, the answer is not quite so easy. There exists an accounting convention, so widely accepted that it may almost be called an accounting axiom, that costs must be eliminated from the accounting cycle in the same terms as those in which they are introduced into the cycle. This is, of course, more than merely a bookkeeping rule. It is a recognized accounting principle, or, if you prefer, an accepted accounting standard. As the American Accounting Association's 1948 statement of concepts and standards puts it, "The most commonly useful financial statements report the origin and disposition of assets in terms of costs established and recorded at the time the assets are acquired."

Both LIFO and depreciation on replacement cost fly in the face of this rule. In times of rising prices (and there is

little point at present in talking about the opposite situation) they both result in charging revenues with costs in excess of acquisition costs. They differ, however, in one very important characteristic. Inventories are used up continuously and are continuously replaced, more or less in kind. Depreciable assets are being used up continuously, but their replacement takes place over a much longer cycle, and not necessarily in kind. This difference has made it possible for LIFO advocates to adopt one of three fictions for the purpose of fitting LIFO into the cost principle, while the advocates of depreciation on replacement cost have no such method for quieting uneasy consciences.

The LIFO procedure is sometimes justified as merely the adoption of a different assumption of sequence in the consumption of inventories. Some cost accounting texts accept this proposition without questioning its validity, and the student is left with the impression that LIFO is just another of several acceptable methods of pricing requisitions and costing sales.

A second approach to LIFO justification under the cost principle is that LIFO is merely intended to smooth out the peaks and valleys in income caused by cyclical fluctuations of prices. Though the use of LIFO admittedly and intentionally alters the income figure for any one year, the long-run result on cumulative income is zero, since prices go down as well as up. If this claim ever was true, it should certainly be questioned now. There is no present suggestion that prices are going to return to their pre-war levels. The sticky factors which have been introduced into the cost structure, and particularly controlled wage rates, make a return to former prices seem out of the question. As a matter of fact, prices generally never do return to their former levels, although there have been violent fluctuations. The long-term trend of prices is up. Not in the

foreseeable future will the income eliminated from income statements in recent years by the LIFO method be restored.

A somewhat more sophisticated approach to the justification of LIFO is the argument that the inventory balance which remains under the LIFO method is a form of fixed asset, and that it is no more unreasonable to show this fixed asset on the balance sheet at a cost dated somewhere in the past than is the similar treatment in the case of land, buildings and machinery.

The development of these three justifications illustrates the fact that not many accountants would deliberately defy the cost principle and go along with George O. May's logical conclusion that the balance sheet has become "a statement of non-homogeneous residuals." Most accountants still cling to the idea that the balance sheet is of some importance, even though they may agree with the recent emphasis on the income statement.

Advocates of depreciation on replacement cost have no such convenient means of dissembling their violation of the cost principle. It is true that it used to be popular in public utility accounting to charge replacements of fixed assets to expense as they were made, but governmental regulation of public utility accounting has put a stop to that practice, and, anyway, it did not work too well with anything except relatively small and numerous assets such as poles, rails and the like. In the case of large properties, the increased debit to cost of sales necessary under the replacement cost method in order to recognize increased replacement cost runs head-on into the stubborn fact that there must be an equal credit which cannot very well be in its entirety to the asset account involved. Such credits can be made, of course, as long as there is any asset balance left, but they can hardly be continued indefinitely, as in the case of

LIFO,
ance i
too mu
Unli
1947 r
and s
the ex
"Reser
This a
"reser
where
embar
tion th
catego
cealed
certain
Steel's
and fo
celera
far as
accom
comput
cost,
the to
the lif
their
It s
ing co
cost i
logic
nores
who d
and e
left i
advan
incom
justifi
it can
violat
One
made
in its
like c
spelle
Th
on rep
the b

LIFO, since the existence of a credit balance in an asset account would be just too much to explain.

United States Steel Corporation, in its 1947 report, met this problem in a logical and straightforward fashion by placing the excess credit in an account called "Reserve for Replacement of Properties." This account was then included in the "reserve" section of the balance sheet, where its presence was not particularly embarrassing; it required no more explanation than the other assorted items in that category. Although this procedure concealed nothing and for that reason was certainly less objectionable than LIFO, Steel's accountants would not go along, and for 1948 and 1949 the theory of accelerated depreciation was adopted. As far as current earnings are concerned, this accomplishes much the same result as computing depreciation on replacement cost, but its usefulness is limited, since the total depreciation to be charged over the life of the properties will not exceed their original cost.

It seems clear that the practice of stating cost expirations in the same terms as cost incurrences has both tradition and logic behind it. The accountant who ignores it is in the same position as the man who deducts pears from apples and oranges and expects people to believe that what is left is peaches. LIFO has unquestioned advantages from the standpoint of both income and property taxes, and may be justified as a matter of expediency, but it can hardly be claimed that it does not violate a sound accounting convention. One wise and witty commentator has made the statement that LIFO, at least in its more extreme manifestations, ought, like certain other patent medicines, to be spelled backwards. It is OFIL.

The same can be said for depreciation on replacement cost, when introduced into the books of record. The illogical results

of this procedure are more easily seen than those of LIFO, since depreciable asset accounts could show credit balances, a form of "residual" too "nonhomogeneous" for the most radical accountant. This practice also has many fewer advocates than does LIFO. Possibly this is because it has received no recognition for tax purposes and seems likely to receive none.

As pointed out heretofore, this is not to deny that some very real problems are presented to accountants by the fluctuating value of their measuring unit. The chief of these relate to taxes, to public understanding of profits, and to cost estimating for planning and control. The adoption of the LIFO principle for income tax purposes was probably justified. It was a belated but sound recognition by Congress that some of the money received from sales must be expended in the purchase of new goods and materials, and that it is uneconomical to levy taxes in such a way as to penalize taxpayers when the price movement is upward. The adoption of a similar principle with respect to depreciation would be equally justifiable. This step should be taken, however, as a recognition that the traditional tax definition of income does not fit the economic facts of life, and not as the result of the adoption by the accounting profession of practices in conflict with the cost principle.

There is one obvious solution to the dilemma in which accountants find themselves. This is to go the whole way in the adjustment of costs to current prices, thus bringing the balance sheet back into harmony with the income statement and restoring the cost principle in substance, if not in its exact original form. This, of course, business managements are wholly unwilling to do. They are very anxious to be permitted to eat their cake, but they shy away from being accused of having it.

This last statement may easily be mis-

interpreted. It is certainly not "cake" in the sense of special advantage, to own a plant which is capable of no more production than when it was new, but whose replacement cost would be two, three, or four times its acquisition cost. Similarly it is no advantage to own inventory which, as it is used, must be replaced at a substantial increase in cost. However, if the income statement is to show charges based on such increased replacement costs, it is only logical to state the assets at corresponding figures. What is required is education of all concerned in the economic facts, and not the invention of accounting methods, no matter how ingenious, for making things seem what they are not.

Two years ago, before this assembly, there was proposed a compromise method. This involved crediting asset or valuation accounts on the traditional cost basis, debiting costs of production and sales at the increased amounts, and placing the balance in an account to be called "Capital Adjustment Account." This proposal is an improvement over the concealment involved in LIFO. The Capital Adjustment Account is, of course, proprietary in nature, and is precisely the same as would have to be set up if inventories and depreciable assets were written up to replacement cost. It requires explanation and is therefore embarrassing to those who want to conceal the "cake," but it has the great virtue of bringing out into the open what has been done, and thus not laying the accountant open to an accusation of conspiring with management to conceal the facts.

It is hard not to be sympathetic with the point that disclosure of current inventory values might jeopardize the tax advantages created by LIFO—advantages both for income taxes and for property taxes. It is tough to ask owners of

business enterprises to follow accounting standards which actually cost them out-of-pocket money. This consideration simply makes nondisclosure understandable, however,—it does not make it good accounting. Advocates of nondisclosure should realize that, as far as labor and financial analysts are concerned, they are dealing with people who understand the implications of LIFO thoroughly and who are quite capable of making estimates of current inventory values which, while crude and inaccurate, adequately serve their purposes. In the long run, both accountants and business generally will be better served by complete disclosure of facts and by facing up to the very real need of explaining and justifying profit levels.

Since the foregoing presents no satisfactory solution, but is chiefly negative in its approach, let me conclude by offering what might be the solution to some of these problems arrived at in the year 2000. By that time, arguments concerning LIFO and the recognition of losses on purchase commitments will have all been settled. The relative pretensions of the income statement and the balance sheet will have been resolved by abolishing the latter and substituting a nonmonetary statement of economic condition. All elements of the income statement will be stated in terms of dollars with a purchasing power as of the day the statement is issued. The result is a figure of net earnings which is thoroughly reliable as an indication of economic achievement and completely comparable (with due allowance for value-of-money changes) with earnings for previous years. The books will probably still be kept on the original cost basis because of its obvious advantages in the way of objectivity.

The statement of economic condition will appear as follows:

THE X COMPANY

Statement of Economic Condition
December 31, 2000

Cash

We have enough cash on hand to cover all of our current debts and to meet the installment of our fixed debt due this month. We also have enough to meet payrolls for the next few weeks. We have, in addition, been conserving some of our cash in recent months by investing it in government obligations for the purpose of erecting a plant addition which will be needed for an expansion of our operations. We have been careful not to accumulate cash in excess of our real needs since it is a nonproductive asset and its purchasing power is decreasing because of the current rise in price levels.

Accounts Receivable

The amounts our customers owe us are about what should be expected in view of our volume of sales and the credit terms which we offer. Collections from this source will meet obligations which will be incurred in the course of operations within the immediate future.

Inventories

Our supply of materials, work in process and completed products, is in good balance and is ample to meet our production schedules and sales commitments. In addition to the materials on hand, we have firm contracts with reliable sources for additional supplies, at prices which we consider reasonable in view of the present state of the market.

Plant and Equipment

Our processing and assembly plants are adequate for our present production schedules, although, as noted above, we are planning an addition to be used for ex-

panded operations. A number of our plants were purchased twenty years or more ago when their prices, by current standards, were quite cheap. Much of our equipment also is not new, but we have kept up with proven advances in manufacturing methods. Our maintenance policies are directed by competent engineers and we have not hesitated to spend the money necessary to keep our properties in good shape. In this connection it ought to be mentioned that we have a loyal and efficient labor force, properly trained to take full advantage of the productive capacity of our plants. We have had no strikes or difficulty in arriving at contract agreements with the unions. We consider this fact to be one of our most important long-term assets.

Land

We own the land on which our plants are located, and enough additional land for office buildings, parking lots, and reasonably foreseeable expansion. Most of this land was purchased 125 years ago, and similar acreage, located with similar convenience to transportation, would now cost us at least fifty times as much as we paid then.

Current Liabilities

The amounts we owe our trade creditors are reasonable in view of our volume of purchases and the credit terms allowed us. We have taken all available cash discounts and our credit rating is A one. As noted above, the cash on hand is more than ample to meet all these obligations, including such items as taxes, utility bills, and so forth, which accrue and come due periodically.

Long-term Debt

This was incurred ten years ago when we expanded our plant and is now almost

paid off. Money was worth a great deal more when we borrowed it than it is today, and meeting the installments has become progressively easier, since our volume of business has expanded more rapidly than the value of money has declined. The periodic interest payments, too, have become easier to meet for the same reason. In a way, we shall miss our long-term debt when it is gone.

Capital

This is just another name for the part of this company owned by the stockholders, after all the debts are paid. The relative proportion of the business owned by the stockholders has increased year by year, and last year was no exception. To state the capital in dollars and cents would be most difficult, since we should not know which of several complex formulae to adopt. For two of the most useful methods of computing the present value of this company, we refer you to our earnings report which accompanies this statement, and to the price of our shares on the New York Stock Exchange. We have 100,000 shares outstanding, all of one issue. The capital got its start by the investments of original stockholders 125 years ago, but it has increased since because of retention of earnings. The stockholders who depend on receipt of dividends will be glad to know that the retained earnings are sufficient to furnish a legal basis for dividend payments at the current rate for some time to come, even though earnings should fall off. This does not assure dividends, of course, since they depend also on our having cash on hand which can be spared for this purpose, but it is comforting to know that there is no legal barrier to payment and we assure you that it is the firm policy of the present Board of Directors not to let you down.

CERTIFICATE

We, the undersigned independent accountants, engineers and attorneys, have examined the above statements and the evidence on which they are based. We are satisfied, each within his own competence, that the statements are reliable and that the economic position of the X Company is fairly reflected by them.

Doe and Roe, Certified Public Accountants

Poe and Yoe, Consulting Engineers
Coe and Rowe, Attorneys

It will be noted that everything looks rosy in the statement above. Complete honesty and candor would require some such remarks as the following if conditions were otherwise:

Cash

We are scraping the bottom of the barrel, and our principal day-to-day worry is where the money is coming from. We have hounded our customers and stalled off our creditors, but it is a struggle each week to meet the payroll. We can only hope that things will come out all right, but we may have to call on our stockholders for enough additional funds to get us over this hump, which we think is only temporary.

Similar appropriate comments as to other items can easily be imagined.

Although general acceptance of a statement of company finances along these lines is no more likely now than was atomic fission 50 years ago, it is submitted that statements prepared along these lines, assuming real objectivity in their construction, would be more useful and informative than the usual income statement consisting of a mixture of current and past dollars and a balance sheet of nonhomogeneous

residuals. Probably accountants have indulged the public too long in statements whose perfect arithmetical balance has created a false sense of reliability and accuracy. Probably the public would not now stand for being deprived of this fine-looking but undependable instrument.

Something like the development of a method of reporting along new and as yet untried lines would seem to be the only wholly satisfactory way to avoid letting the entanglements of cost bookkeeping interfere with the realities of cost reporting and interpretation.

AN INTRODUCTION TO CORPORATE ACCOUNTING STANDARDS

Monograph No. 3

By

PATON AND LITTLETON

Contents: Standards, Concepts, Cost, Revenue,
Income, Surplus, Interpretation

\$1.10 per copy, including postage

Add 50¢ for orders outside of the Continental United States

Reprinted in February, 1951

Mail orders to

American Accounting Association

College of Commerce and Business Administration

University of Illinois

URBANA, ILLINOIS

PREFIX TO SUPPLEMENTARY STATEMENT NO. 1

AT THE MEETING of the Executive Committee held in Boston on September 6, 1950, a plan was approved for the publication of a series of statements to be prepared by the Committee on Accounting Concepts and Standards. The following statement is the first of this series. This Committee will also be responsible for the preparation of any further revision of the comprehensive Statements on Accounting Concepts and Standards Underlying Corporate Financial Statements, the last revision of which was published in 1948.

The primary purpose of the Committee on Accounting Concepts and Standards is the determination and expression of desirable accounting objectives and principles. Its statements will not necessarily be confined to recommendations for immediate adoption in current practice.

All publications of the Committee shall require the approval of two-thirds of the committee membership. Dissenting views, if any, are to be included in the published statements.

THE EXECUTIVE COMMITTEE

RESERVES AND RETAINED INCOME

SUPPLEMENTARY STATEMENT NO. 1*

COMMITTEE ON CONCEPTS AND STANDARDS UNDERLYING
CORPORATE FINANCIAL STATEMENTS

American Accounting Association

THE LITERATURE of the accounting profession contains numerous attacks on the use in accounting of the word "reserve." In 1949 the Committee on Concepts and Standards considered this problem and recommended that the use of the term "reserve" be limited to reserves which constitute a part of the stockholders' equity.

After further consideration the Committee now believes that its earlier action should be extended and presents the following recommendations for desirable future developments in accounting.

CONCLUSIONS

1. The term "reserve" should not be employed in published financial statements of business corporations.

2. The "reserve section" in corporate balance sheets should be eliminated and its elements exhibited as deduction-from-asset, or liability, or retained income amounts.

3. Appropriations of retained income should not be made or displayed in such a manner as to create misleading inferences.

(a) Appropriations of retained income which purport to reflect managerial policies relative to earnings retention are ineffective, and frequently misleading, unless all retained income which has in fact been committed to operating capital is earmarked. Partial appropriation fosters the implication that retained earnings not

earmarked are available for distribution as dividends.

(b) Appropriations of retained income required by law or contract preferably should be disclosed by footnote. If required to be displayed as balance sheet amounts, such appropriations should be included in the proprietary section.

(c) Appropriations of retained income reflecting anticipated future losses, or conjectural past or present losses (when it is not established by reasonably objective evidence that any loss has been incurred) preferably should be disclosed by footnote. If displayed as balance sheet amounts, such appropriations should be included in the proprietary section.

(d) In any event, whenever appropriations are exhibited in a balance sheet, the retained income (excluding amounts formally capitalized) should be summarized in one total.

4. The determination of periodic earnings is not affected by the appropriation of retained income or the restoration of such appropriated amounts to unappropriated retained income.

DISCUSSION

Use of the Term "Reserve"

In general usage, outside of accounting, a reserve is a fund of cash or other assets. According to Webster the term means, in finance, "funds kept on hand to meet demands." In accounting the term has been used to caption a variety of balance sheet items including segregated retained income, segregated assets, asset valuation

* December 31, 1950.

and asset amortization amounts, and liabilities. Occasionally the term is observed even on statements of operations, where it is used to warn the reader that an expense has been estimated.

It has been recommended that the word "reserve" be restricted to captions describing appropriated retained income. While it would be an improvement in accounting terminology if the term were thus confined to items includible in the stockholders' equity, this would leave unresolved the conflict between the general and the accounting connotations of the word. The Committee believes, therefore, that the popular understanding of financial statements, and the thinking of the profession, would be promoted by abandoning the term.

The following advantages are anticipated:

1. Clarity of financial statement captions would be promoted.
2. Non-accountants (and students of accounting and finance) would no longer be expected to deal with a specialized meaning at variance with popular usage.
3. Professional thinking would be freed from a confusing ambiguity.

Against what appear to be obvious advantages to the abandonment of the term "reserve," there seem to be no significant offsetting disadvantages. For example, there appear to be no items which require that the term "reserve" be employed to devise an informative and descriptive caption. In accounting as elsewhere traditional terminology is not immutable.

Balance Sheet Classification

The "reserve section" has been a common feature of published financial statements. It customarily appears between liabilities and capital. The items displayed vary from statement to statement, and have been observed to include asset valuation and asset amortization items,

liabilities (including deferred revenues), appropriated retained income and (rarely) earmarked capital stock premium.

The classification in one section of such heterogeneous balance sheet elements is undesirable and misleading. If the term "reserve" is abandoned, the supersession of the "reserve section" by more precise classification and more informative captions should follow.

Asset valuation and asset amortization amounts established by proper charges to operations are misclassified unless shown as deductions from the assets to which they relate.

Amounts established to "provide" for anticipated shrinkages in asset values (such as future inventory losses, or other losses which if they do occur are clearly related to future, not current, operations) are not proper deduction-from-asset items. Such anticipated losses preferably are disclosed in footnotes to the statements. If management has elected to provide for them by appropriations of retained income, such appropriations should be classified as retained income on published statements. Similar conclusions are applicable to conjectural past or present losses (when it is not established by reasonably objective evidence that any loss has been incurred).

Some liabilities are subject to substantial uncertainty as to amount. Such liabilities should be classified with the other current or non-current obligations of the enterprise and captioned or footnoted to indicate that the amount shown is estimated; if feasible, disclosure should be made of the extent of possible variation. The reader of a balance sheet has a right to expect that the liabilities section discloses all creditor claims which, in the judgment of the management, based on reasonably objective evidence, are an established burden on the resources of the enterprise (including those which result from costs reasonably chargeable against revenues

accrued to the balance sheet date). However, improbable and conjectural claims, the existence or validity of which is contingent, preferably are revealed by footnote. If displayed on the balance sheet, such appropriations should be classified with retained income.

Deposits, advances, and prepayments by customers (sometimes classified as "deferred revenues") are liabilities until such time as it becomes appropriate to recognize them as revenue; it follows that they should be displayed in the liabilities section of the balance sheet. Items sometimes classified as deferred revenues, such as unrealized gross profit on installment sales, are not liabilities. When the obligations of the concern have been performed, and related costs are capable of reasonably objective measurement, revenues should not be deferred on published financial statements even though deferral is permissible for income tax purposes.

Appropriations of Retained Income

Appropriations of retained income are of three general types: (a) those which are designed to explain managerial policy with regard to prospective or accomplished reinvestment of earnings, (b) those which are intended to restrict dividends as required by law or contract, and (c) those which "provide" for anticipated conjectural losses, reflecting a possible shrinkage in the net resources.

Type (a) appropriations, intended to explain reinvestment policy, do not effectively achieve this objective unless all earnings retained as long-run operating capital are earmarked. It is obviously desirable to inform the users of published statements as to the objectives to be accomplished through the reinvestment of earnings, and there is reason to believe that management has a greater obligation in this respect than it now exercises. This can best be done, however, by properly

descriptive narrative material. At this stage in the development of accounting, a comprehensive subdivision of the proprietary equity as a summary of managerial policy is seldom practical. Furthermore, it is doubtful that the equity section of the balance sheet will ever become the most practical vehicle for the disclosure of such information. Managerial policy is of necessity complex; its exposition is enhanced by the flexibility of the balance sheet footnote, the president's letter, or other similar device. It follows that if the proprietary section of the balance sheet is now an inadequate vehicle for the comprehensive disclosure of managerial policy, all such interpretive data should be removed from its face. Where feasible, simplicity is preferable to complexity. Partial earmarking is frequently misleading and it fosters the implication that retained earnings not earmarked are available for distribution as dividends.

Type (b) appropriations, required by law or contract, should be separately exhibited in the proprietary section only if display on the balance sheet is required. For the reasons discussed above, such appropriations may confuse and mislead the reader; if permissible, the facts are best disclosed in footnotes.

Type (c) appropriations, to "provide" for anticipated or conjectural losses, may be intended to disclose hazards the effect of which cannot be objectively determined. Such hazards are numerous in most business enterprises and "provisions" are established on a highly selective basis. Appropriations encountered in current practice vary so widely in purpose and scope, and carry such uninformative captions, that a reader of published statements who is not able to secure additional information is confused and frequently misled. Full disclosure can most effectively be accomplished through footnotes to the statements.

If appropriations of retained income for any reason do appear in the balance sheet, they should be included in the proprietary section, be clearly described, and be displayed in such a way as to lead to a single total of retained income, including both appropriated and unappropriated. This in turn facilitates the showing of the stockholders' equity, an item of major importance in the statement, in a single amount.

Effect on Periodic Net Income

Because of their nature, appropriations

of retained income may not properly enter into the determination of net income. If made, they should be charged directly to retained income and, when cancelled, should be returned without affecting the reported net income. Furthermore, they should not be used to absorb charges arising from operations.

Proper charges against revenues for losses or expenses incurred or accrued result either in liability or deduction-from-asset amounts, not in amounts classifiable as appropriations of retained income.

Statements of the Committee on Accounting Concepts and Standards represent the reasoned judgment of at least two-thirds of its members. They are not official pronouncements of the American Accounting Association or of its Executive Committee.

They shall not necessarily be viewed as stating rules of current professional conduct or procedure. Rather, they state objectives in the development of accounting principles. Some are intended to have immediate applicability, while others forecast the general direction in which accounting may develop.

Committee on Concepts and Standards
Underlying Corporate Financial
Statements—1950

Willard J. Graham, Chairman
Daniel Borth, Jr.

Thomas M. Hill
George R. Husband
Donald H. Mackenzie
Stewart Y. McMullen
Maurice H. Stans

There are listed below the names of the four men who have acted as consultants to this Committee. They have given freely of their time in criticizing successive drafts of this Supplementary Statement and have offered many constructive suggestions for its improvement. It does not follow, however, that they are in complete agreement with the conclusions, nor do they assume responsibility for them.

Carman G. Blough
James L. Dohr
Earle C. King
William A. Paton

CLARIFYING THE BALANCE SHEET

AN ANALYSIS AND INTERPRETATION OF SUPPLEMENTARY
STATEMENT NO. 1 ON "RESERVES AND RETAINED INCOME"
BY A MEMBER OF THE COMMITTEE ON CONCEPTS
AND STANDARDS

STEWART YARWOOD McMULLEN
Professor, Northwestern University

IN THIS issue THE ACCOUNTING REVIEW publishes the text of Supplementary Statement No. 1 prepared by the American Accounting Association's Committee on Concepts and Standards Underlying Corporate Financial Statements. Statement No. 1, which carries the title "Reserves and Retained Income," displays the conclusions of the Committee on six major questions inherent in the preparation of published financial statements of business corporations.

In this article, one of the authors of Statement No. 1 analyzes and interprets the discussions of the Committee and the conclusions formalized in the published statement. While the statement represents the unanimous judgment of the seven members of the Committee, this interpretation is of course the product of one member only, and the other members of the Committee are not responsible for the thoughts expressed except to the extent that they are borne out by the text of Statement No. 1.

THE STATEMENTS ON ACCOUNTING CONCEPTS AND STANDARDS

In the June 1936 issue of THE ACCOUNTING REVIEW the Executive Committee of the American Accounting Association published a "tentative statement" of accounting concepts and standards underlying corporate financial statements. Revisions were issued in 1941 and 1948. These statements were not presented to the membership of the Association for approval; therefore they were recommendations of

the Executive Committee, not of the Association.

In September 1950 the Executive Committee, meeting in Boston on the occasion of the annual meeting of the Association, approved a proposal of the Committee on Concepts and Standards that it be authorized to issue a numbered series of supplementary statements (supplementary, that is, to the twice revised comprehensive statement). At that time the Executive Committee transferred to the Committee on Concepts and Standards responsibility for subsequent revisions of the comprehensive statement, to be issued over the signatures of the then members of the Committee on Concepts and Standards. The Executive Committee will neither approve nor disapprove the recommendations of the Committee, but it will designate years deemed appropriate for revisions of the comprehensive statement. The members of the Committee will be appointed annually by the President of the Association, but as a matter of policy the membership will be rotated slowly.

The supplementary statements formally recorded the conclusions of the Committee between revision years. The "charter" of the Committee, and the text of Statement No. 1, make it clear that the Committee will make "recommendations for desirable future developments in accounting." The Committee is not seeking to define accepted current practice for the guidance of certifying accountants. Some of the recommendations on reserves and retained income confirm current practice while

others recommend ways in which published financial statement practices could be improved. The published reports of many corporations do in fact "conform" to one or another of the Committee recommendations; some are in line with the statement in its entirety.

THE SIX MAJOR QUESTIONS

The discussions of the Committee in the general area of reserves will be analyzed in terms of the six major questions on which Statement No. 1 makes recommendations.

1. Is the word "reserve" a useful tool in published financial statements?
2. Is the "reserve section" (by which is meant any intermediate zone between liabilities and the proprietary section, in whatever form cast) a desirable feature of published financial statements?
3. Is it desirable practice to "appropriate" retained income to reflect earnings retention policy?
4. Is it desirable practice to "appropriate" retained income to "provide for" losses which are not yet chargeable against periodic income?
5. Are the totals of retained income (appropriated and unappropriated) and of the proprietary equity, important balance sheet amounts? Should they be summarized in balance sheet totals?
6. Should appropriations of retained income, or restorations of such appropriations to retained income, or charges against appropriated retained income, affect the computation of periodic net income?

The Term Reserve

The comprehensive statement and its revisions, issued by the Executive Committee, have not objected to the heterogeneous use of the term reserve; the 1948 revision uses the word in several senses and gives tacit approval to its use in all three

of the major sections of the balance sheet. In October 1948 the Committee on Terminology of the American Institute of Accountants (in Accounting Research Bulletin No. 34) recommended that the term be used only in the captions of proprietary equity items and cited evidence of similar thinking in Britain. In 1949 the Committee on Concepts and Standards arrived at a similar conclusion.

Statement No. 1 recommends that the term reserve be eliminated from published statements. The members of the Committee concluded that the value of the word as an incisive tool of thought and disclosure has been destroyed by using it in so many different senses and that other, more descriptive, terminology is readily available. The Committee could find no reasons to justify a recommendation that the profession seek to standardize a definition which would be in permanent conflict with the dictionary meaning.

Furthermore, there appears to be a trend away from the use of the term in the proprietary section; according to the Research Department of the American Institute of Accountants the words "appropriated" or "appropriations" are "frequently used" in the captions of appropriations of retained income on current published statements.

There has also been a marked decline in the use of the term reserve in the captions of deduction-from-asset items. Of the 525 published statements included in the data reported in *Accounting Trends and Techniques*,¹ a substantial and increasing number of statements employed substitute captions for valuation and amortization items.

Not Using the Term Reserve in Connection with:	1948	1949
Doubtful Accounts	131	182
Depreciation	171	236

¹ The American Institute of Accountants, 1950.

While "reserve" has been used in connection with items classified as liabilities, and on statements of periodic net income, and in its dictionary sense as earmarked assets these phenomena have always been of relatively minor importance. The section of the balance sheet in which the term is most widely used, and in connection with which it shows the greatest hardship, is the reserve section; here, according to the Research Department, substitutes were employed in "relatively few instances."

One correspondent observed that he "didn't know what he could say" to a client wishing to employ the term in its dictionary sense. The point is well taken: there is only one thing that can be said. The word reserve has been used so indiscriminately as to destroy its value. If different users are to employ it in different senses the present unsatisfactory situation will not be resolved even if each user confines himself to a consistent definition of his own. Broad policy requires that the term be abandoned in favor of the superior substitute terminology which is readily available.

The Reserve Section

The 1948 revision of the comprehensive statement recommended that "the balance sheet should contain no special section for reserves." This dictum was new in the 1948 revision; it has no counterpart in the bulletins of the Committee on Accounting Procedure of the American Institute of Accountants.

In Statement No. 1 the Committee on Concepts and Standards reiterates this conclusion of the Executive Committee. And there is some (inconclusive) evidence that the use of the reserve section to display appropriations of retained income is declining. In 1949 a material number of appropriations of retained income to "provide for" conjectural inventory losses were

moved elsewhere, principally to the proprietary section, as demonstrated in the following data from *Accounting Trends and Techniques*.

Inventory Reserves—How Shown:

Year	Total	Reserve Section	Deductions from Assets	Proprietary Section	Current Liabilities*
1947	180	114	53	9	4
1948	174	99	56	15	4
1949	147	61	57	23	6

* All items classified as current liabilities related to basic LIFO.

In this tabulation, the number of appropriations for inventory "losses" shown in the reserve section declined from 99 in 1948 to 61 in 1949, a decline of 38 items. Twenty-seven were restored to retained income, being "no longer useful"; the other 11 items were transferred to other locations on the balance sheet (8 to the proprietary section). In other words, about one out of six of the concerns which retained such appropriations, previously classified in the reserve section, decided that the display of such items in the reserve section is poor practice, and transferred them elsewhere.

The problem confronting the profession, with which the Committee dealt in its discussions, stems from the relative character of the proprietary equity. Business hazards are numerous and the possibilities of loss are difficult to measure. Yet a balance sheet is cast in absolute terms. The reserve section, and the traditional unwillingness to summarize the liabilities in one total, stem from a very real problem.

But the reserve section has never offered an effective solution. Accounting has not worked out standards which would give meaning to a three section division of the equity side of the balance sheet. Suggestions tending in this direction were discussed by the Committee but drew no sustained support.

The reserve section, in practice, in-

cludes deduction-from-asset items, so-called deferred revenues, liabilities, almost-liabilities, possible-liabilities, unlikely-liabilities, and appropriations of retained income having no liability connotations whatsoever. The Committee concluded that those liabilities which can be "objectively determined" (which is not an absolute standard) should be displayed as liabilities. Contingent liabilities which cannot be "objectively determined" are a part of the proprietary equity and should be classified accordingly and adequately explained in footnotes.

A wide variety of "reserves" (as described in *Accounting Trends and Techniques*) were examined in a search for amounts which could be classified only in the intermediate zone between liabilities and the proprietary section. All questionable items were ultimately classified, as a whole or after division, as deduction-from-asset, liability or proprietary section items.

In its discussion of the problems of classification, the Committee considered among others, the following situation which was presented by one correspondent as evidence that the Committee would be impractical unless it recommended that the door to the reserve section be left ajar. (The original description of this case has been summarily edited, as it was three pages long.)

The Reserve Section: The Border-line Case

A closely held corporation, on advice of its accountants, decided to pay out only a small portion of its annual income: it was considered a good business proposition to risk a section 102 penalty assessment for "unreasonable accumulation of surplus."² (In later years the concern sus-

tained losses and so the section 102 assessment, which was never made, became less likely.) On three successive balance sheets, said this correspondent, while "obviously there was no actual liability to be set up on the books . . . as a certifying accountant I certainly would not put out a balance sheet making no reference to this contingency. A banker might grant a loan on the basis of such a balance sheet and a 102 assessment which would triple the current liabilities might be levied later that week . . . What we did in this case was to charge earned surplus and credit reserve for contingencies." This caption, continues the letter, "tells the reader next to nothing but it does serve a very useful purpose by putting the banker on guard and forces him, if he is intelligent, to ask questions . . . concerning the nature of the reserve. . . ." This correspondent closes with the observation that he has "talked to some men who were so naive as to suggest that they would caption the account reserve for additional income taxes."

The device will be successful only if the caption conveys one meaning to the banker, another to a revenue agent. Therefore, ambiguity is an essential ingredient, and the requisite amount of confusion will exist only if the reserve section continues to offer a wide variety of fare. The ambiguity which has heretofore surrounded the reserve section is of course one of the principal reasons for the recommendation of the Committee that the reserve section be abolished. And the "slightly open door," recommended by this correspondent, did not impress the members of the Committee as either a necessary or a desirable solution.

There is a possibility that the manage-

² In the course of the discussion, a question emerged which is outside of the ambit of Statement No. 1, but which is mentioned because of its inherent theoretical interest. The question is this: is a penalty assessment under section 102 a cost which should properly enter into the determination of periodic net income or is it a

quasi-dividend, having no connotations for corporate net income, paid for the sole purpose of avoiding a larger dividend distribution? Should it be charged directly to retained income, even under the "clean surplus" doctrine?

ment
ing a
Con
so w
ment
must
to th
by h
the n
of th
liabil
Th
in di
of th
disc
notes
that
not b
the c
gentl
quest
event
In
Com
by th
favor
the n
read
ask q
mate
ment
be be
conti
origin
nothi
On
conti
ment
accou
appea
comp
ance
status
The
footn
is bor
525 c

ment might elect to set up a liability carrying a "non-naive" caption such as "Other Contingent Liabilities." A decision to do so would of course be made by management; while the certifying accountant must insist on disclosure, the decision as to the method to be used will not be made by him. However, it seems unlikely that the management, under the circumstances of this case, would elect to triple its current liabilities.

Therefore the solution appears to lie in disclosure by footnote. The majority of the Committee believed that adequate disclosure could be secured by two footnotes, one to make the familiar statement that the Federal income tax returns had not been examined for specified years and the other that the corporation is contingently liable for a stated sum but that the question of liability depends on future events which are not predictable.

In the judgment of one member of the Committee, the disclosure accomplished by these two footnotes is inadequate; he favors a more forthright approach. But the majority believes that a stockholder-reader, or a creditor, not in a position to ask questions, would be given an approximately accurate, though generalized, statement of the situation; he would certainly be better informed than by a reserve for contingencies which, in the words of the original letter, "tells the reader next to nothing."

One wonders whether the reserve for contingency approach, if not supplemented by a footnote, gave the certifying accountant as much legal protection as he appeared to assume were he faced with a complaint initiated by a user of the balance sheet not enjoying the privileged status of the company's banker.

The preference of the Committee for footnote disclosure of contingent liabilities is borne out by current practice. Of the 525 corporations the published statements

of which were surveyed in *Accounting Trends and Techniques* 203 concerns disclosed 317 contingent liabilities "with footnotes as the chief source of disclosure." Apparently the managements of these concerns agree that the footnote affords more flexibility and permits more adequate disclosure; balance sheet captions are limited to a sentence, at most, whereas footnotes may include several paragraphs.

However, while refusing to agree that the door to the reserve section should be left ajar, the Committee does not rule out appropriations of retained income to "provide for" contingent losses. Statement No. 1 says that such contingencies "preferably should be disclosed by footnote" but that "if displayed as balance sheet amounts, such appropriations should be included in the proprietary section."

The Reserve Section: Other Problems

A spirited discussion took place with respect to so-called "self-insurance reserves." There is no unanimity in the Committee as to whether casualty losses accrue, statistically or otherwise. It was argued pro that plant accident losses may accrue, and that past experience may afford a reliable means of estimate, adequate to "objective determination." It was argued con that fire losses do not accrue in advance of the fire, and that after a fireless year the probabilities of a fire are no greater because of the previous good fortune. No solution was reached in the Committee; as there is so much cordial disagreement on the issue among informed accountants it is unlikely that the seven members of the Committee would be able to agree.

But there was unanimity on the point that if a charge, however computed or justified, is made in the computation of periodic net income, the resulting credit is a deduction-from-asset or liability item; it is not appropriated retained income.

Obversely, classification of an amount as a liability implies that a charge entering into the computation of present or past periodic net income is appropriate, and a failure to display an item as a deduction-from-asset or liability amount implies that no charge against periodic net income has yet been proper. (This dictum does not apply, of course, to items which, by their nature, are not properly chargeable in the computation of periodic net income, e.g., dividends.)

Implicit in this position is a rejection of the thesis that liabilities must include only amounts payable to creditors under established contractual arrangements. Modern balance sheets are prepared on a going concern basis and the implications of this approach should be as applicable to liabilities as to assets. The following examples, drawn from *Accounting Trends and Techniques*, show that a number of concerns are currently using this theory in displaying current liabilities.

- Replacement cost of pattern discards (McCall Corp.)
- Provision for repairs to tugs (Pacific American Fisheries, Inc.)
- Sludge disposal costs (National Cylinder Gas Co.)
- Provision for returns and allowances (Standard Stoker Co., Inc.)
- Basic life provisions (six concerns)

Since World War II, a number of pension plans have been established by agreements under which, in the opinion of management, the amount of potential liability has not yet been determinable. But to the extent that management has "objectively determined" dollar charges against periodic net income, the resulting credits are liabilities. If there is a possibility that the resulting liability item may be inadequate in amount, management should employ footnote disclosure until such time as the situation clarifies.

Deferred Revenues

If items are not to be classified in an intermediate zone between liabilities and the proprietary section, what is to be done with so-called deferred revenues? The Committee distinguished two types of "deferred revenues," classified one type as liabilities and recommended that the other type be absorbed in current income.

Deposits, advances and prepayments by customers may not be recognized as revenue under accepted accounting conventions until the revenue has been "earned," that is, until the obligations of the concern have been substantially satisfied. These items are liabilities, under the going concern assumption, whether or not they are refundable, and whether or not they contain an element of potential profit.

Unrealized gross profit on instalment sales is not a liability. If substantially all of the obligations of the concern have been discharged, the revenue should be taken into current income. Future collection costs and the potential costs arising from guaranties, if any, are not a bar to the recognition of instalment revenue any more than they prevent the recognition of revenue under the accrual approach. Nor does a possibility of default justify a showing of unrealized gross profit on instalment sales; the method employed in establishing its amount does not realistically measure the amount of potential losses from defaults, if any. Statement No. 1 says that "when the obligations of the concern have been performed, and related costs are capable of reasonably objective measurement, revenues should not be deferred on published statements even though deferral is permissible for income tax purposes." This recommendation is contrary to the position taken in the 1948 revision of the comprehensive statement that "the usual criteria for the recognition

of revenue are subject to modification where there is an extended period of collection."

It does not appear that this recommendation of the Committee requires that all amounts now classified as unrealized gross profit on instalment sales automatically become current revenue. Income is not recognized until a reasonably objective matching of cost and revenue is feasible. There are situations in which so-called "sales" on the instalment plan are made with an expectation of a substantial number of defaults. Such a situation raises doubt as to the validity of the sales basis of accruing revenue but the situation is not improved by apportioning a demonstrably false gross margin over an equally erroneous period of collection. The sum legally collectible under the terms of the contract ceases to be a significant balance sheet amount in the face of an expectation that a smaller sum will be collected. If experience can be relied upon to estimate the probabilities of default, a reserve for doubtful accounts should be established and deducted from the appropriate receivable. In extreme cases, prudence may require adherence to cost until the potential profit is capable of reasonably objective measurement.

The Reserve Section: Conclusion

The Committee concluded that, just as a statement of periodic net income is truly useful only if the amount of net income is clearly earmarked, so a balance sheet is most meaningful if the liabilities and the proprietary equity are clearly classified to the end that their separate totals may be determined. While absolute classification is difficult in areas which are essentially relative, accountants have long insisted that, in spite of the difficulties involved, net income must be computed and clearly set forth (for example,

see ARB No. 31, paragraph 2). The Committee believes that there is no less an obligation to compute, and clearly earmark, the liability and proprietary sections, and that with the aid of modifying footnotes the requisite degree of flexibility can be achieved.

Disclosure of Earnings Retention Policy

The 1948 revision of the comprehensive statement recommended that "conditions limiting the disposition of retained income are preferably disclosed by parenthetical comment or footnote." In Statement No. 1 the Committee reiterates this dictum and then, in one respect, goes beyond it.

The Committee discussed the following questions:

1. Would a comprehensive subdivision of the proprietary equity be useful? Is it practical?

2. Does partial (selective) earmarking of retained income serve a useful purpose? Can the purpose be served better by footnotes? Is the selective earmarking of retained income misleading?

Several members of the Committee urged strongly the social value of disclosures of managerial policy with respect to the reinvestment of earnings. Statement No. 1 says that "there is reason to believe that management has a greater obligation in this respect than it now exercises."

How is this disclosure to be accomplished? By footnotes? Through the president's letter or some equivalent form? Or by a comprehensive subdivision of the proprietary section?

Major difficulties were encountered in the attempt to accomplish this objective by subdividing the proprietary equity. Should capital stock, as well as retained income, be subdivided in order to show dedication? This would seem to be necessary if any real classification is made. But

how? One correspondent recommended a supporting schedule, a suggestion which has obvious merit. Exactly how are the required computations to be made? In view of section 102, and also the desires of stockholders and labor for larger distributed shares of revenue, would management be willing to publicly earmark a portion of retained income as available for dividends yet retained?

The Committee was unwilling to conclude that a comprehensive earmarking of the proprietary equity is impossible. But at the same time it was unwilling to recommend the procedure unless and until practical methods to accomplish it have been developed. It appeared from the discussion that a majority of the members were more impressed with the "flexibility of the balance sheet footnote, the president's letter, or other similar device," and with the simplification of the balance sheet which would result from the use of such collateral means of disclosing managerial policy.

Selective Earmarking

But when the discussion turned to earmarking of a portion of retained income, which is of course a feature of current financial statements, the majority of the members were obviously unimpressed. Selective earmarking was deemed an unsatisfactory, and frequently misleading, substitute for comprehensive earmarking. It was believed that in the hands of a reader not well schooled in the subtleties of statement preparation, the device carries a specious implication of comprehensive earmarking. Furthermore, the portion of retained income earmarked has almost always been committed to the long-run operating resources of the enterprise and therefore is not available for the second purpose for which it is publicly segregated; such a double commitment does violence to one's sense of logic and is offensive to many who believe that it destroys the

symmetry of the balance sheet.

Traditionally, the proprietary section of a balance sheet shows legal "facts," such as the par value of its outstanding stock. It may also show the amount of retained income legally distributable though frequently, of course, this showing is by no means exact (in which event the practical value of the customary arrangement is obscure). If retained income is then subdivided to disclose management policy it tends to become a hodge-podge of conflicting disclosures. This difficulty can be resolved by removing items intended to reflect managerial policy from the face of the statement, using other means of disclosure; simplicity and clarity will be promoted thereby.

Appropriations to "provide for" losses

It has been pointed out in a previous section that the Committee recommends that losses chargeable in the computation of past or present net income should give rise to deduction-from-asset or liability items; such amounts should not be classified in the proprietary section. While the profession relies on "objective evidence" in formulating its standards the phrase has not been precisely defined; precise definition may not be feasible due to the wide variety and relative character of the potential loss situations which arise in business. Statement No. 1 makes no attempt to define "objective standards" but states nevertheless the obvious fact that hazards, the effects of which cannot be objectively determined, "are numerous in most business enterprises and provisions are established on a highly selective basis." While leaving the door open to appropriations of retained income, the statement recommends footnotes.

Liability and Proprietary Section Totals

It would appear logical to conclude that a clear-cut separation of deduction-from-asset, liability and proprietary equity

items should be implemented by a display of appropriate totals. Statement No. 1 recommends that appropriated and unappropriated retained income "be displayed in such a way as to lead to a single total of retained income. This in turn facilitates the showing of the stockholders' equity, an item of major importance in the statement, in a single amount."

The discussion of this point has implications bearing on the text of the 1948 revision of the comprehensive statement which says: "The distinction between paid-in capital and retained income should be permanent. Where retained income has been designated as paid-in capital by means of stock dividends, recapitalizations, or by other customary corporate action the amount so designated should be indicated in the balance sheet."

Evidence was introduced which demonstrated to the satisfaction of most of the members of the Committee that the distinction between paid-in capital and retained income may be essentially formal, resulting from the selection of one or the other of two alternatives, at the discretion of management. For example, how fundamental is the difference between a stock dividend on the one hand, and a cash dividend followed by stock rights on the other? Therefore, in spite of strong objection by one member, a proposal to concur in the dictum of the 1948 revision was dropped.

It appears that the force of the minority objection to this action stems from the insistence that management has an obligation to disclose earnings retention policy. The majority, while sympathetic to the objective, were disturbed by the amount of historical information which would have to be displayed by some concerns to attain precise disclosure. It was therefore concluded that from the administrative and economic points of view retained income is a part of the capital of the concern and that the formal distinctions between paid-

in capital and retained earned capital, whether or not there have been stock dividends, are of doubtful utility except in the contemplation of the law.

It follows that the total proprietary equity is an important amount which should be clearly earmarked on the balance sheet, but that the total retained income is desirable merely as a component to be used in subdividing the proprietary section.

Periodic Net Income and Appropriations of Retained Income

In the 1936 comprehensive statement the Executive Committee said:

"Income statements for a series of periods should not be distorted or artificially stabilized through the practice of creating large operating reserves in certain periods and charging to such reserves losses in succeeding periods which it is desired not to reflect in the current income statement. Surplus set aside for contingencies or for other purposes does not lose its identity and should ultimately be restored intact to surplus account. Any loss arising from such contingencies should be reflected not in the reserve but in the income statement of the period in which the loss occurred."

Though modifications were made in the wording, these recommendations were continued in the 1941 and 1948 revisions.

In January 1942 the Committee on Accounting Procedure of the American Institute of Accountants (in ARB No. 13) took a stand against "equalization reserves" and reinforced this position in July 1947 (in ARB No. 28) when it discouraged charges entering into the determination of net income to establish "general purpose contingency reserves" and again in October 1947 (in ARB No. 31) when it opposed provisions for inventory losses (in excess of writedowns to "market") by charges affecting periodic net income.

Statement No. 1 joins this parade and recommends that appropriations of retained income and cancellations of such

appropriations "may not properly enter into the determination of net income" and further that such appropriations "should not be used to absorb charges arising from operations."

The following data from *Accounting Trends and Techniques* indicate that this recommendation is in line with widely accepted practice.

Provisions for Contingencies and Possible Future Inventory Price Declines—How Created or Increased During the Year:

Year	By Charges Affecting the Computation of Net Income	All Other Charges	Total
1946	52	76	128
1947	27	98	125
1948	9	95	104
1949	4	49	53

While the number of charges against income above net income declined 92%, the number of such provisions created or increased during the year by charges which had no effect on periodic net income also declined markedly (35.5% from 1946, and 50% from the high point in 1947). The overall decline in such provisions during the four year period could indicate that, in the judgment of management, the amount of potential losses has declined, or that prior provisions were deemed adequate without alteration, or that management is losing interest in appropriations of retained income which, the profession has concluded, should have no effect on periodic income.

Though the meaning of the overall decline is uncertain, it would appear that the sharper decline in the number of charges entering into the computation of periodic net income is significant: it indicates that the united front has borne fruit, and accomplished an alteration of "accepted practice."

And this result has been accomplished in an area in which the difficulties were at least as great as in the area of contingent liabilities.

In one respect Statement No. 1 en-

larges on the recommendations of its predecessors when it says that "proper charges against revenues for losses or expenses incurred or accrued result either in liability or deduction-from-asset amounts, not in amounts classifiable as appropriations of retained income." This recommendation extends the previous dicta to their logical conclusion; it may serve to eliminate the confusion which led one concern in 1949 to transfer its insurance reserve, created by charges entering into the computation of periodic net income, from the reserve section to the proprietary section.

CONCLUSION

Statement No. 1, like any other report of professional thinking, will be influential in proportion to the acceptability of the opinions expressed. It may be significant that on the basic questions, which gave rise to the most important recommendations, there was no material disagreement within the Committee though some of the recommendations differ in important respects from current practice and from other professional pronouncements.

The statement is a logical result of the strong trends toward disclosure and statement clarification which have been so apparent in the last half century. The clarification to be accomplished will be both explicit, through improvements in terminology and classification, and implicit, by making clear the relationship between the income statement and the non-proprietary sections of the balance sheet.

The Committee has under consideration statements on the instalment sales basis, current costs, working capital, depreciation and other subjects. With the exception of the statement on the instalment sales basis it remains to be seen whether the unanimity displayed in Statement No. 1 will carry over to subsequent bulletins.

BUSINESS PROFIT AND THE PRICE LEVEL

RUSSELL BOWERS

Associate Professor, Carnegie Institute of Technology

INDUSTRIALISTS, labor leaders, and the American people generally have expressed preference for a private enterprise economy in which the primary rational motive for production is profit. The correct reporting of profit is thus as important as a free market economy itself. Economists are familiar with a distinction between nominal wages and real wages and nominal income and real income. The difference is an adjustment for change in price level measured by some general index. Many economic decisions are based on this distinction. Yet on the other hand, a similar distinction between nominal and real profits has not been widely accepted. It is the present thesis that this failure is based in part upon a misconception of economic cost. Also this failure is based on the fact that conversion of nominal profit into real profit is more complicated than conversion of other nominal distributive shares into real terms. It is the general purpose of this discussion to illustrate quantitatively a distinction between real and nominal profit and to show some of its economic implications.

Relevant to the use of money in reporting cost is the distinction between money as an asset which is held and value as a measure of the cost of other assets which are held or accounted for. Any measuring technique involves the application of a measuring unit. And in any case the choice of a measuring unit and the application of that unit are two things—not one. In accounting for income the measuring unit generally accepted is the legal dollar, while the application of the measuring unit is the business transaction between parties of opposed interests. In accounting for busi-

ness income persistent use of the legal dollar at all times to measure cost and revenue has led to many unfortunate comparisons. In the application of the measuring unit the accountant has made a valuable contribution to economics. But in the choice of a uniform measuring unit the contribution is less worthy. Accordingly the amount of money paid is usually considered to constitute cost as well as to measure cost. Now costs and receipts are economic quanta. They are not mere monetary outlay and receipt. Real cost is, for example, the value of economic resources over which money paid gives command. It is the general purchasing power of money paid which constitutes economic real cost and not the legal money itself. This fact is no doubt obscured by the fact that at the time a business transaction takes place the money contracted to be paid as of that date and the economic cost at the same date are necessarily equal quantities. The fact that historical costs have to become historical ought to raise misgivings as to whether last year's dollar spent need this year give an adequate expression of the quantity of economic resources foregone as cost.

A yardstick is meaningless to anyone who has not compared the yardstick with familiar linear distances at the time he forms his conception of the length of a yardstick. Accordingly anyone's conception of an economic dollar has all the limitations of his ability to appraise the dollar in terms of economic commodities. This is to argue that the appropriate correction for nominal profit, or any income, is that for generalized purchasing power. It would seem then that the most appropriate

concept of an economic dollar is its current general purchasing power rather than that of any other base date in the past. A current general price index, even though imperfect, is thus a better standard for measuring economic resources or costs than any particular commodity index or any particular person's experience as to what he personally is able to buy with a legal dollar. Special indexes have objections which can best be stated elsewhere. But in any event with the lapse of time the meaning of a dollar fades from memory and the clearest impression becomes the current purchasing power of the legal dollar. Thus historical cost, while expressing an ostensibly measured cost, only measures economic real cost in terms of general purchasing power on the date of the business transaction in question. With a change in purchasing power of the dollar historical real costs become distorted unless corrected by an index of change in the general purchasing power of the dollar.

Take a simple example. This example has been found to be so startling to many people that it is well that it receive due emphasis at the outset. It illustrates the essence of the subsequent discussion. Assume the purchase of a productive factor during 1945 at a cost of \$10,000. This factor of production is then sold or converted in 1950 for \$15,000 at a reported profit of \$5,000. In the meantime there is an assumed increase in the general price level of 50%. It might be supposed that there is a profit of \$5,000 in 1950 dollars which would have two-thirds the purchasing power of 1945 dollars. In comparing the 1950 profit with a similar profit which had been made in the year 1945 it might appear that real profit had fallen by one-third due to change in value of the dollar and thus amount to only a relative \$3,333. But this is not the case. The historical real cost is not \$10,000 but \$15,000. Expressed in current 1950 dollars the real 1945 cost is 150% of the cost expressed in 1945 dollars. The real

profit is zero. If the profit on similar transactions consummated in 1945 is \$5,000, then in order to have an equivalent profit in 1950 the selling price must be \$22,500. Of this amount of revenue the historical real cost is \$15,000, which leaves a nominal profit of \$7,500 and the real value of \$7,500 is \$5,000 in 1945 dollars. Thus for the two years 1945 and 1950 the profits would be precisely equal.

The point may be amplified by reference to a common comparison made between profit and wages. Given a 50% rise in the general price level, and assuming that prices of "wage goods" which laborers buy offer no exception, a rise of 50% in nominal wages would be necessary if real wages were maintained. However, in the case of profit under the conventional method of reporting, the increase in gross receipts must be 50% of \$15,000 which is to be designated as the historical real cost. Under conventional accounting methods subtracting nominal historical cost from current revenue gives a nominal profit part of which is absorbed by understated real cost.

The tendency to confuse a correction for error in historical real cost, due to the changing value of the dollar, with current replacement cost has been unfortunate. Accountants have presented their case against replacement cost on grounds of the desirability of using a more satisfactory measure of cost than is furnished by an appraisal. In doing this they have used certain realization criteria for both cost and revenue based on actual business transactions. The desire to use replacement cost recognizes the weakness of historical legal dollar cost but support of the method must rest on some incorrect economic reasoning such as the economic desirability of always replacing worn out equipment with new equipment of equal operating capacity. The only merit of the method seems to be that it does provide some higher monetary expression of cost when higher monetary expression of cost is proper, and the re-

verse for lower costs. But no compensating advantage is gained which justifies abandonment of the actual business transaction as the process of applying an objective measuring unit of cost. If at best accounting for profit is only an estimate or a judgment, as is often alleged, it should be pointed out that accounting has developed useful techniques for measuring profit which are not to be confused with opinionated appraisals of what cost would be under a set of assumed conditions upon which no buyer or seller has acted in fact.

Historical real cost is here defined as a quantity of resources actually expended, consumed, or surrendered as a condition of realizing revenue. The only point in question is that of deceptive measurement. Accounting cost is not an economic alternative of what would have been expended in order to replace the factors used, i.e., opportunity cost. Opportunity cost is not germane to a set of accounts. The economic alternative is a fact which should govern the seller in deciding whether to produce and sell or not to produce and sell, but knowledge of this does not aid in measuring any gain or loss. It is not to be supposed that the historical cost of an asset should be the sole directive and guide in establishing a selling price. Accounts cannot give managerial decisions. But profit still is somehow a residue measured by the difference between cost and selling price. Profit is not a cost in this sense, although the expectation of profit does have the effect of a cost in the long run market supply schedule for a product. Thus not all costs are or should be recorded by the accountant. Some are reflected only as higher profit. If there exists any difference between an economic cost and an accounting cost it exists only in the fact that some items of cost are omitted from the accounts because they have not been subjected to the transaction test of measurement.

Let us continue with an operational

concept of profit as reflected in a firm's accounts. A representative income statement is presented with three ciphers omitted. Omitting three ciphers will have no material effect but to alter the appropriate income tax rate since the rate is somewhat graduated. This tax is held constant for simplicity of illustration.

Corporate Income
Year Ended Dec. 31, 1950

Net Sales.....		\$100,000
Factory Cost of Sales:		
Depreciation.....	\$ 5,000	
Other.....	59,320	
	\$64,320	
Selling Expenses.....	12,000	
General Administration.....	8,000	\$ 84,320
Net Revenue.....		\$ 15,680
Interest on Debenture Bonds.....		4,000
Net before Income Taxes.....		11,680
Income tax (assumed).....		4,180
Net Income for Stockholders.....		<u>\$ 7,500</u>

The practice of referring to net income for stockholders as profit is unfortunate if used with reference to directing national economic policy. A large part of corporate profit is implicit interest, and a heavy trading on the equity of the firm multiplies the amplitude of fluctuation in residual profit more than the overall fluctuation in total income for the firm. This complication will be included in the subsequent discussion. Interpretation of the adequacy of the \$7,500 here reported to stockholders requires reference to the firm's balance sheet which is assumed as follows:

Corporate Balance Sheet
January 1, 1950

<i>Assets</i>	
Current Assets.....	\$ 50,000
Plant Assets.....	125,000
	<u>\$175,000</u>
<i>Equities</i>	
Current Liabilities.....	\$ 10,000
Debenture Bonds.....	100,000
Capital Stock.....	30,000
Capital Surplus.....	10,000
Retained Earnings.....	25,000
	<u>\$175,000</u>

Abstracting from the current liabilities of \$10,000 and equivalent assets for simplicity, there is a total investment in assets at \$165,000 accounted for by equitable claims of bondholders, \$100,000 and of stockholders, \$65,000. Explicit interest of 4% or \$4,000 has been allocated to the bondholders according to long-term contract. Thus the reported profit of \$7,500 is the dollar earnings of a residual investment of \$65,000 or a rate of about 11.5%. The rate to stockholders is so high in part because the rate to bondholders is so low. Relatively secure bonds might sell on a 4% basis in perfect competition with less safe stock in the same company on an 11.5% basis. This fact would demonstrate a market equilibrium rate for both. The rate of earnings on total investment is \$11,500 divided by \$165,000, or about 7%. The pure interest rate here is 4% or less depending on the degree of risk attending the bonds. If the pure interest rate is 4%, the rate of pure profit is only 3% per dollar invested. The higher rate of 11.5% which the stockholders receive is in part a premium not for assuming pro-rata the economic risks of the firm but for relieving the bondholders of part of the risk of the firm. The bonds gain relative security at the expense of less security relatively for the stock with the risk for the firm as a whole being given. The relevance of all this is that it is not proper to compare change in the reported profit of a firm or group of firms with change in wage rates for the same firm or firms. The only proper comparison is wage rates with earnings per dollar of total investment. Profit then can be defined appropriate to the present discussion as the earnings of a business firm ascribed to the total invested capital. It also may be defined more narrowly as just the return on the residual equity capital. It is essential only to make clear which concept is used.

II

It is the purpose now to demonstrate the appropriate corrections required under legal dollar accounting for reporting real profit.¹ Let us continue the above example of a "normal" profit of \$5,000 in a base year and examine the effects of a rise of 50% in reported profit to a figure of \$7,500 in the succeeding year. Modifying the above example only in detail, the firm's balance sheet January 1, 1950, is as follows:

Assets			
Current:			
Cash.....	\$ 10,000		
Current Receivables.....	17,000		
Inventories.....	23,000	\$ 50,000	
Plant:			
Land.....	\$ 20,000		
Buildings.....	\$50,000		
Less: Depreciation.....	9,000	41,000	
Machinery.....	\$80,000		
Less: Depreciation.....	16,000	64,000	125,000
Total Assets.....			\$175,000
Equities			
Liabilities:			
Current Payables.....	\$ 10,000		
Debtenture Bonds.....	100,000	\$110,000	
Capital Stock and Surplus:			
Capital Stock—Par.....	\$ 30,000		
Capital Surplus.....	10,000		
Retained Earnings.....	25,000	65,000	
Total Equities.....			\$175,000

During the year 1950 several changes in the balance sheet accompany the reported earned profit of \$7,500. The general tendency of liquidity in the short run to exceed profit incidentally may be noted. For instance, whereas profit is \$7,500, the working capital position is increased by \$12,500. Normally all revenue creates *current* assets or the equivalent, whereas expenses such

¹ The method here used is in part borrowed from Sweeney and others. See H. W. Sweeney, *Stabilized Accounting*, Harpers, 1936. Also George R. Husband, *Inadequacy of Orthodox Accounting Procedure in View of Fluctuating Price Levels*, University of Michigan, 1931.

as \$5,000 depreciation are not on a current basis. This is of course only a short run phenomenon of the firm. For simplicity of illustration we will divide the increase in current assets equally between the three current items, whereupon the balance sheet at the end of the year will appear as follows:

<i>Assets</i>			
Current Assets:			
Cash.....	\$ 14,167		
Current Receivables.....	21,167		
Inventories.....	27,166	\$ 62,500	
Plant:			
Land.....	\$ 20,000		
Buildings.....	\$50,000		
Less: Depreciation.....	10,000	40,000	
Machinery.....	\$80,000		
Less: Depreciation.....	20,000	60,000	\$120,000
Total Assets.....			<u>\$182,500</u>
<i>Equities</i>			
Liabilities:			
Current Payables.....	\$ 10,000		
Debenture Bonds.....	100,000	\$110,000	
Capital Stock and Surplus:			
Capital Stock—Par.....	\$ 30,000		
Capital Surplus.....	10,000		
Retained Earnings.....	32,500	\$ 72,500	
Total Equities.....			<u>\$182,500</u>

The two depreciable items are buildings, which cost \$50,000 ten years earlier when the general price level was 100, and the machinery which was purchased five years earlier when the price level was also 100.² It is assumed that the general price level rises at the uniform rate of 10% per year for the five-year period between January 1, 1946, to December 31, 1950.

Following the statement earlier, that people generally think in terms of current prices rather than in terms of prices of any given date in the past, it is better to con-

vert economic costs into current dollars than to convert them into dollars of any other date.

Cash and current receivables thus need no correction because cash is the yardstick in current general use, and receivables also are expressed in current dollars. The question of determining the implicit loss through holding cash during a period of generally rising prices is not reflected by the present procedure. This in any event should require a separate report. Inventories, on the other hand, while being current assets, are nevertheless *costs* in contrast to *funds*. There is some normal tendency for automatic correction to current prices in this instance as old stock is replaced with new stock in the merchandise turnover. But application of the method in question is to be distinguished clearly from that of replacement cost and hence here will be used. We assume for simplicity an average age of items in the inventory of six months. Thus the desired results are attained by multiplying the legal dollar cost of the inventory on hand by the present general price index and dividing by the index of the date of the record. Thus $\$27,166 \times 1.05 = \$28,524$ which is the historical real cost of the inventory expressed in current dollars. If greater accuracy is desired when the items in the inventory have been acquired on various dates, it can be achieved by applying the index number of the date of purchase to each purchase contained in the inventory instead of using the average. Correction for the asset land is similar. Since the land is assumed to have been purchased ten years previously, the real historical cost in current dollars is $\$20,000 \times 1.5 = \$30,000$.

Correction for the plant assets is more complicated because of the write-off of depreciation. Original costs of assets acquired on various dates should be converted severally as indicated in the pre-

² The base year for which the general price index used is computed is not important because the correction is simply to divide the recorded cost by the general price relative for that date and then multiply by the corresponding index for the date of the report.

ceding paragraph. Thus the historical cost of the building acquired on a single date is corrected: $\$50,000 \times 1.5 = \$75,000$ and of the machinery: $\$80,000 \times 1.5 = \$120,000$.

The accrued depreciation to date on the building represents the amortization of one-fifth of the total original cost because one-fifth of its usefulness is exhausted and this sum should have been charged to operations. The present adjusted accrued depreciation account should thus be one-fifth of \$75,000 or \$15,000. Accordingly the charge for the current year should be 2% of \$75,000 or \$1,500. Likewise the machinery, which is five years old, should be in total one-fourth amortized or to the extent of $\$120,000 \times \frac{1}{4} = \$30,000$.

Correct charges for depreciation of the past ten years are as follows:

Year	Building		Machinery		Total
	Current to 1950		Current to 1950		
1941	\$1,000	\$1,500	.....	.....	.....
1942	1,000	1,500	.....	.....	.....
1943	1,000	1,500	.....	.....	.....
1944	1,000	1,500	.....	.....	.....
1945	1,000	1,500	.....	.....	.....
1946	1,100	1,500	\$4,400	\$6,000	\$7,100
1947	1,200	1,500	4,800	6,000	7,200
1948	1,300	1,500	5,200	6,000	7,300
1949	1,400	1,500	5,600	6,000	7,400
1950	1,500	1,500	6,000	6,000	7,500
Totals	\$15,000		\$30,000		

The various equities of the firm are subject to similar adjustment. Liabilities are payable in current dollars and hence are, like cash and funds receivable, self-correcting. "Gains" in liabilities tend to offset "gains" in assets, but it would be a rare coincidence if the two in any given case were equal. It is the purpose of this procedure to discover and report if these are equal. An implicit gain is inherent in an issue of bonds outstanding during a period of general price rise. If the present bonds were issued between 1941 and 1946, then the economic resources borrowed were 50% greater than the legal liability in 1950 indicates. Resources of \$100,000 in 1945

dollars must be expressed as \$150,000 in current dollars. Similar reasoning requires conversion of Capital Stock and Capital Surplus to \$45,000 and \$15,000 respectively. These are presumed to have been acquired in terms of 1940 or 1945 dollars.

The retained earnings account represents a series of credits for profit not determined by a uniform unit of measurement. The sum is one of legal dollars which have economic significance varying with general prices of the dates of record. Let us assume the total balance of January 1, 1950, has been accumulated at the rate of \$5,000 per year. The profits thus look stable after 1945 and the result might encourage interested parties to act on the assumption of stable dollar income, although it would not be forgotten that the purchasing power of any dividend of \$5,000 has declined with the rise in general prices after 1945. But it is our immediate task to question the reality of the gain of \$5,000 rather than to examine its current purchasing power. If this annual profit were as represented at the close of 1950 as corrected for the inflated dollar it would appear as follows:

Year Ended December 31	Income as Reported	Conversion Factor	Price Level Adjustment to 1950 Level	Earnings December 31 if Corrected
1945	\$5,000	1.5	\$2,500	\$7,500
1946	5,000	1.4	2,000	7,000
1947	5,000	1.3	1,500	6,500
1948	5,000	1.2	1,000	6,000
1949	5,000	1.1	500	5,500
1950	7,500	1.0	0	7,500
Totals	\$32,500		\$7,500	\$40,000

If the current reported retained earnings expressed the retained real profit which it purports to do the amount would have to be \$40,000 current dollars. Restating the balance sheet in terms of current dollars and isolating the accompanying discrepancy explicitly for the more pertinent items which distinguish the conventional report and the corrected report, the bal-

ance sheet of December 31, 1950, should the economics of the case, the situation is appear as follows: as if the common stock issue were par

Assets (Adjustments Not Isolated)

Current:			
Cash.....	\$ 14,167		
Current Receivables.....	21,167		
Inventories.....	28,524	\$ 63,858	
Plant:			
Land.....		\$ 30,000	
Buildings.....	\$ 75,000		
Less: Depreciation.....	15,000	60,000	
Machinery.....	\$120,000		
Less: Depreciation.....	30,000	90,000	180,000
Total Assets.....			<u>\$243,858</u>

Equities

Liabilities:			
Current Payables.....	\$ 10,000		
Debenture Bonds—Par.....	100,000	\$110,000	
Stockholders' Equity:			
Common Stock—Par.....	\$ 30,000		
Price Level Adjustment.....	15,000	\$ 45,000	
Capital Surplus.....	\$ 10,000		
Price Level Adjustment.....	5,000	15,000	
Original Stockholder Investment.....			60,000
Debenture Bond Adjustment.....			50,000
Retained Earnings.....	\$ 32,500		
Price Level Adjustment.....	7,500	\$ 40,000	
Understated Real Investment.....	\$ 8,642		
Elimination of Price Level Adjustment above.....	7,500	16,142	
Real Retained Earning in Current Dollars.....			23,858
Total.....			<u>\$243,858</u>

The adjustment of \$50,000 for revaluation of the bond issue requires explanation. This "equity" might appear to be adequate compensation to stockholders for any overstatement in real earnings, but such a view is not strictly relevant to the present argument. The item is merely a required adjustment to the invested real capital in order to avoid understatement of the real resources devoted to use in the enterprise. The point will be clarified if a more simplified financial structure is assumed in which all capital is obtained through a single issue of stock; then no real gain would accrue to anyone even if the firm were liquidated at book value. To stress

\$130,000 without bonded debt. The status of the item then is only that of restatement in real terms of the original capital investment. The stockholders can gain only what the bondholders lose. It makes no material difference to the economic question involved if the item is shown as an adjunct to the bond issue or as an adjunct to the stock issue; the point involved is a shift—and possibly an unfortunate one—between stockholders' ownership and bondholders' ownership.

The amount by which total earnings of the five years have been overstated is \$8,642 expressed in 1950 dollars. It is the result of understated real investment. This

item is the result of two sets of opposing errors in valuation. On the one hand is the undervalued investment in assets measured in 1950 dollars while on the other is the undervalued investment in the firm (equities) measured also in 1950 dollars. It is important to note that the nature of the case does not involve the question of current valuation in the sense of current market prices. The problem is exclusively an accounting for original investment in real terms before reporting subsequent gains and losses. The calculation is as follows:

Understated Investment in the Assets:			
Inventories.....	\$ 1,358		
Land.....	10,000		
Buildings—Net.....	20,000		
Machinery—Net.....	30,000	\$61,358	

Understated Investment in the Firm:			
Bonds.....	\$50,000		
Stock at Par.....	15,000		
Premium Received on Stocks....	5,000	\$70,000	

Deficiency of the Firm's Equities.....	\$ 8,642
--	----------

The retained earnings section of the statement might be analyzed in several ways. For present legal usage it is necessary to preserve intact the conventionally reported retained earnings of \$32,500. The residual item of \$8,642 might be shown in contra which would simply reflect the real retained earnings in current dollars, \$23,858. The price level adjustment of \$7,500 derived in the preceding table is shown as a memorandum only. It is itemized as an adjunct to retained earnings in order to show the conversion of reported earnings to the current price level, which should be \$40,000. The item is then eliminated by addition to the correction for understated real investment. In other words, past reported earnings should have been \$40,000 if reported in terms of the 1950 value of the dollar.

The method used is to derive the retained earning (Surplus) figure as a residue with values of assets, liabilities and invested capital independently determined, and then to analyze the item \$23,858 in any

manner which might be useful. This analysis is of secondary importance since the total sum of real retained earnings is limited to the residue of \$23,858. It is desirable to preserve the legally reported retained earnings of \$32,500. Then the amount by which real retained earnings are overstated is a residue of \$8,642. The significance of all this is that if dividend policy is based on reported profit then only a total of \$32,500 dividends could be disbursed without impairment of original capital. In real terms any dividends other than those previously accounted for will be disbursed from capital if they are in excess of the corrected figure of \$23,858.

Corrections for the income report of one year now will be presented. Assume that the general price rise of 10% is uniform throughout 1950 and that the mid-year index will suffice for the transactions which are assumed to take place at a uniform rate throughout the year. Thus a yearly rise of 10% will require the use of an index of 1.05 to convert nominal revenue and some expense into real terms as shown at the top of the next page.

It should be clear that revenue of \$105,000 is not received in current dollars. Only \$100,000 was received during the year and if held the corresponding assets are currently worth only \$100,000. The purchasing power or value of the resources received constituted when received a fund which if measured by current dollars would be \$105,000. The loss from holding cash assets during the period of general price rise is not reported. Corrections for sales offset corrections for expenses, but since sales are always consummated in the current year and expenses such as depreciation in part are usually the result of commitments of previous years, a larger error in the expenses ordinarily results. In the present case the stockholders' real profit is not \$7,500 as conventionally reported but is only \$6,034 in current dollars.

Net Sales ($\$100,000 \times 1.05$)			\$105,000
Depreciation $\$5,000 \times 1.50$	\$ 7,500		
Other ($\$59,320 \times 1.05$)	62,286	\$69,786	
Selling Expenses ($\$12,000 \times 1.05$)		12,600	
General Expenses ($\$8,000 \times 1.05$)		8,400	90,786
Net Revenue			\$ 14,214
Interest on Debentures			4,000
Income Before Income Tax			\$ 10,214
Income Tax (in legal dollars on a legal dollar base)			4,180
Net Income to Stockholders (Current Dollars)			\$ 6,034

For those who would publish percentages the difference is significant. The profit in current dollars is not 50% over the \$5,000 reported for the previous year, but is only 20% over the previous year. This sum must be corrected also for change in purchasing power if compared with reports for earlier years. Some of the gain is at the expense of bondholders and is thus a matter of sharing profits within the group of all investors as a class. The income for all capital invested is \$10,034 after taxes. In the preceding year the income for all investors was \$9,000 after taxes with total taxes assumed to be constant for the two years. The real return on all capital invested thus has increased by only 11.5% and this amount remains to be corrected for a decline in purchasing power if the current dollars in terms of which it is expressed are to be compared in purchasing power with dollars received in years in which no such corrections are made. Considering the fact that net profit in the case of any financial structure of the firm is small relative to total revenue or total expense, the extremely tenuous nature of the item during a period of general price change should be apparent. Rising general prices are thus not so favorable to high profits as it seems; they are favorable to the illusion of higher profits than are actually realized.

III

The remainder of this discussion will be devoted to the usefulness of profit reports

which have been reduced to real terms by correcting for change in value of the dollar. First is the use which could be made of the corrected reports by the investor and the firm; second is the use to be made of them in the formulation of national economic policy.

Let us consider the investor's position. Would his decisions be significantly different if he used corrected reports instead of uncorrected reports? It has been the contention of advocates of the use of corrected reports that he should. Investors' decisions would presumably be different if they knew reported earnings and dividends were really in part a depletion of original investment. If during periods of rapid price rise dividends are disbursed to the full extent of reported earnings then the investor mistakes income for capital and hence consumes or otherwise administers his reported income as income and not in part as capital. The investor can not easily make the most desirable use of his total resources without a proper distinction between income and capital.

It has been contended also that a firm which does not account for capital in real terms before reporting and distributing income will eventually face economic hardship or bankruptcy because it depletes its real economic capital without being aware of the fact. It is well known that firms generally do not look with favor upon the distribution of all or even of the major portion of their reported earnings. Various

excuses are given for retaining a large portion of corporate earnings. It can be seen that often a major portion of these earnings is used to replace equipment at higher prices. The implication is evident that such profits to a large extent never exist but are only illusory. This way of handling the matter seems a very loose rule of thumb treatment of so important a matter as a firm's annual earnings which are so carefully measured in other respects.

The next conclusion which may be reached may at first startle advocates of accounting adjustments for change in price level. It can, I think, be demonstrated that with the use of corrected reports neither the investor will necessarily act differently than he does now, nor will the firm in the long run face bankruptcy or economic disaster. The usefulness of profits corrected for general price changes must be based, if at all, upon economic reasoning which is more fundamental to our economic structure than either of these arguments.

The investor in the typical modern corporation rightly or wrongly seems to be influenced more by the prospect of dividends than he is by the prospect of real earnings. He has learned to base his dividend expectations on conventionally reported earnings. He may often anticipate fairly well what per cent of reported earnings will be disbursed, especially if he looks to the general managerial policy of the company and not just to the reported earnings figure. But can dividends be disbursed even as a more or less constant percent of reported income without imperiling the financial solvency of the firm? Both the dividend question and the solvency question are part of the same general problem and can be answered together by the exposition of a simple principle. I am tempted to call this the Ponzi principle, yet the circumstances are such that the principle might receive perpetual sanction if applied socially on a grand enough scale, whereas for

Ponzi it was considered anti-social.

Let ten dollars be invested in an inventory which is later sold for eleven dollars. This looks like ten per cent gain. But it is found that because of higher prices it takes eleven dollars to replace the inventory in order to continue business at the same level as before. The profit of one dollar is reinvested and no distribution is made. The second turnover is accomplished on even more "favorable" terms by sale at thirteen dollars. This time one dollar is again retained for use in "expansion." But one dollar is distributed as a dividend, ten per cent on the original investment. It is found, however, that twelve dollars are now needed to replace the inventory. But this needed additional investment is provided by retained earnings.

Take a more severe case in which real capital is not actually maintained. Say an inventory costing twelve dollars is sold for thirteen dollars, for which replacement would cost fourteen dollars. Such a situation on a large scale would raise the capital requirements of the firm. Assets of thirteen dollars can easily be used as security for a loan of the additional required dollar or more. But could a borrower continue in perpetuity to meet additional capital requirements in this way? The current value of the inventory either before or after additional borrowing can be found to constitute quite adequate security for the currently required loan. The original investment by this inflationary process will never be entirely depleted. All that results is a continuously increasing ratio of debt to equity capital. But will this ever growing ratio of debt to equity capital not inevitably lead to insolvency of the firm and loss of control by the present owners? This question poses a slightly different problem. The solution now shifts from the immediate and narrow problem of borrowing to the broader problem of raising additional capital funds with which to operate.

To continue the process there need be only a shift from borrowing in terms of liabilities with definite maturity date to a form of raising capital without maturity date or fixed interest charges. To apply the principle on a large scale a firm need only turn from mortgage or debenture bonds for example to income bonds of remote maturity or to preferred stock or even to common stock. Both dividends and interest can be disbursed from real capital. The real capital need never reach the point of complete exhaustion nor even come near to exhaustion by this process of diluting dollar values. The capital requirement for operation can be replenished by resort to the money market through the issue of new stocks of various types. And so long as investors think in terms of continued dividend rates on original invested dollars the firm can continue even though there may be borrowing from Peter to cover a real deficit created by dividend and interest payments to Paul. When it comes Paul's turn, the capital expansion will come from an investment by John.

Is there not a fallacy somewhere? Suppose the individual firm could operate in this way, would it not be doing so at the expense sooner or later of other firms or of the rest of the economic system in which it operates? The funds required for operation are expressed and administered only in terms of legal tender money with no regard for value other than current purchasing power. The additional funds required for the whole system are generated by the very monetary inflation which is accused of being the source of the trouble. Suppose all firms in an economy in which there is perpetual monetary inflation which generates price inflation follow the foregoing policy of going to the capital market for funds required for replacements at inflated prices and pay dividends and interest from real capital. There is no limit to the expansionary process. There never

need be default on required interest or on dividend distributions except as imposed by law and convention.

If capital is treated as dollars *per se* and if interest and dividends are valued accordingly with respect only to their current and not their historical purchasing power, the process envisages no inevitable financial bankruptcy and attendant disorganization and change of control; nor does it envisage any necessary reluctance on the part of investors to invest in equities required to maintain or to expand production in real terms.

Two recent observations in our economy are ominous. One is the rise to greater respectability in the investment market of preferred and common stock equities. There is some evidence to indicate that institutions whose investment policies have always required high grade bonds are looking with more favor upon certain high grade stocks partly with a possible inflationary trend in mind. The other ominous consideration is that under inflation since the war and with an awareness on the part of management of certain large and influential companies that in real terms profits were small or even negative, expansion programs have proceeded as though current dollar dividends were the motivating force of the investor.

Is then the accounting for real capital and profit not important? I am convinced that it is, but its significance lies beyond the more common arguments in its behalf. The justification of accounting for real profits as well as accounting for any economic income lies in the more fundamental problem of allocating real resources to their various possible alternatives. We cannot economize either individually or socially by economizing merely dollars. It can be contended that dollar allocation *per se* has tended to obscure unduly the more fundamental question of the most rational allocation of economic resources.

IV

A summary and concluding statement might be helpful. First, there is no general consciousness of a distinction between money profit and real profit throughout our economy such as the distinction between money wages and real wages. The method of converting nominal profit into real profit is more complicated than the conversion of such other distributive shares as wages from nominal to real terms. During periods of general price fluctuation real profit fluctuates more relatively than do such distributive shares as wages for reasons of required adjustments in stated costs. This is true quite aside from a similar induced fluctuation which is the result of trading on the equity.

People think in terms of current prices and not in terms of prices of any past date. There is no visible justification for requesting a change in such habits. The economic quanta of costs and revenues must be measured in dollars of homogeneous purchasing power if profits are to be reported in terms of real economic resources. This should be in current dollars for convenience. The results of past transactions should be converted to current dollars by use of the most general price index available. Special objections can be raised against the use of special indexes. Real profits are much lower during prolonged periods of price rise than are conventionally reported profits. The converse is presumably true during periods of falling prices, although this has not been illustrated here.

Business decisions seem to be based irrationally on nominal profits as though nominal and real profits were the same. The primary objection to the use of nominal instead of real profits is not that there is a dearth of investment supply during

periods of price rise. The facts seem to indicate the opposite. The investor can continue to receive adequate interest and dividends so long as general price inflation continues, even though such interest and dividends are paid by a continual depletion of real capital. There is no inevitable day of reckoning when the pool of capital of the business firm from which interest and dividends spring need be substantially depleted. No inevitable bankruptcy will be faced. The monetary inflation which is in itself the cause of mistaking real capital for real income on the part of particular individuals and firms acts as a perpetual source of dollar funds with which to pay interest and dividends and to forestall bankruptcy.

The economic fallacy involved lies in the more fundamental question of possible misdirection of economic resources generally. If resource allocation in an economy is made on the basis of current legal dollars without regard to the real resources which such dollars measure, the allocation will certainly be different than otherwise. It need only be suggested here that the allocation can be effected more nearly in response to conscious purpose or intent if done on the basis of a measuring unit of constant value. If the value of the dollar does not remain stable, then the next best policy would seem to be correction in costs and revenues for change in the general purchasing power of the dollar. It would seem also that the problem is as much an ethical problem as it is an economic problem. The distribution of real income with respect to persons as well as allocation of resources with respect to products involve both economic and ethical considerations. In no actual case can these factors be separated. The justice of the matter is as important as the economics of the case.

TRENDS AND PROBLEMS IN GOVERNMENTAL AND INSTITUTIONAL ACCOUNTING*

OSCAR S. NELSON

Associate Professor, Wharton School, University of Pennsylvania

THE IMPORTANCE of the subject of governmental and institutional accounting today cannot be overstressed. The people of the United States are becoming more institution and government minded every day. A larger and larger slice of the income dollar is going for institution support and government taxes as time goes on. The people certainly want their institution contributions and their tax money to go as far as possible. It has been said that government is wildly extravagant and always has been. The point is now being reached where it is unwise to be extravagant any longer.

Sound budgeting, sound accounting and sound auditing are the answer of accountants to the problem. Sound budgeting to assure careful planning and strict control; sound accounting to assure accurate recording, exact accountability and meaningful reporting; sound auditing to assure direct scrutiny and verification of expenditures and results by an independent agency of the people themselves, who are the beneficiaries.

Governmental and institutional accounting deals with the principles and practices of accounting in connection with groups of people in society who are united in non-profit undertakings for the purpose of rendering services of particular kinds to their groups specifically and to society generally. It might be denoted "social

accounting" in that its purpose is to insure the safe and efficient use of funds provided by given social groups for the benefit of themselves and the general public.

The principal accounting problems of governments and institutions are: (1) accounting for revenues in accordance with restrictions placed thereon by legislative bodies, donors or governing boards; (2) accounting for the appropriation, encumbrance and accrual of expenditure items in each of various funds; (3) accounting for the resources and the obligations in each of various funds, including the maintenance, depreciation and disposition of permanent properties and the retirement of long-term debt; (4) control over the activities and fidelity of custodians through internal control, internal auditing and outside post-audits by independent accountants; (5) preparation of meaningful reports for the various interested persons, such as, administrators, governing bodies and the public.

The scope of the subject is very broad. It embraces the accounting problems of all governmental bodies and social agencies, including federal, state, county, township, city and borough governments, school districts, airport and other authorities, colleges, hospitals, churches, community chest agencies, red cross agencies and perhaps many others. Fortunately, the accounting problems are similar for all. The accounting trends and problems of current importance only are considered at this time.

* This paper is a summary, prepared by the author, of the discussions presented at the round table on this subject at the annual meeting of the American Accounting Association at Boston, September 7, 1950.

ACCRUAL ACCOUNTING

Many municipalities, particularly the smaller ones, are finding it impractical to accrue revenue items and, hence, are accounting for revenues on a cash basis. State laws in some cases appear to require the cash basis for revenue. Many municipal accountants, therefore, are advocating that publications on the subject of municipal accounting should recommend the use of the cash basis for revenue while retaining the accrual basis for expenditures. The author believes that this would be a serious mistake. It has taken many years of hard work on the part of accountants and public officials to establish accrual accounting as the standard recommended procedure. To relax standards now might start a trend away from the accrual basis not only in revenue accounting but also in expenditure accounting. Municipalities that are required to report revenues on a cash basis can do so by using a separate surplus account to show the excess of revenue accrued to date over revenue received in cash. The following entries are illustrative:

Taxes Receivable.....	\$350,000.00
Accounts Receivable.....	53,000.00
Allowance for Uncollectible Taxes.....	\$ 3,500.00
Allowance for Uncollectible Accounts.....	2,500.00
Available Revenue Uncollected.....	397,000.00
(To record accrual of tax and miscellaneous revenues and to make provision for uncollectible accounts)	
Cash.....	\$375,000.00
Allowance for Uncollectible Taxes.....	2,800.00
Allowance for Uncollectible Accounts.....	2,200.00
Taxes Receivable.....	\$332,000.00
Accounts Receivable.....	48,000.00
(To record collection of taxes and accounts receivable and the write off of uncollectible items)	
Available Revenue Uncollected.....	\$375,000.00
Revenues (cash).....	\$375,000.00
(To record cash realization of revenue)	

After the usual closing entries, the balance sheet accounts relating to revenues and surplus would appear as follows:

Resources	
Cash.....	\$ 3,000.00*
Taxes Receivable.....	\$18,000.00
Less Allow. for Uncoll. Taxes.....	700.00
	\$17,300.00
Accounts Receivable.....	\$ 5,000.00
Less Allow. for Uncoll. Accts.....	300.00
	\$ 4,700.00
Obligations & Unappropriated Surplus	
Unappropriated surplus:	
Available Revenue Uncollected.....	\$22,000.00
Surplus Revenue (cash).....	3,000.00*
	\$25,000.00

It will be noted that the amount of the available revenue uncollected is exactly equal to the net taxes and accounts receivable. Hence, in effect, the revenues have been accounted for on a cash basis. However, all revenue accruals are shown on the books, and the total revenue for the period on the accrual basis can be computed by adjusting the cash revenue total for the difference between the beginning and ending balances of the Available Revenue Uncollected account, in the present illustration \$375,000.00 plus \$22,000.00 since there was no beginning balance.

ENCUMBRANCES

Another question of current interest is: What should actually be considered encumbrances as of the close of a fiscal year and how should they be accounted for in order to relate expenditures to the proper accounting periods? It would seem that only bona fide purchase orders and contracts should be treated as encumbrances. These are obligations to outside contracting parties and, to the extent not fulfilled or cancelled as of the close of a fiscal year, should be carried over on the books to the succeeding year, even in a

* Amount used is illustrative only.

general
merge
bered.
of the
using
should

Gov
have b
possib
ports.
period
conten
stockh
are ple
stand.
devote
mentar
that th
may h
and a
An
along
Unive
Morey
compl
sentin
readab
compl
tives

It is
govern
be mo
ments
reserve
illumi
lowing
1. J
Reser
2. J
instea
3. J
Reser
4. J

general fund, where it is customary to merge appropriations not then encumbered. The placing of orders near the close of the fiscal year merely for the purpose of using up unencumbered appropriations should be discouraged or prohibited.

STATEMENTS

Governmental and institutional bodies have been slow to sense the public relations possibilities of published accounting reports. Large corporations have over a long period of years consistently improved the content and format of financial reports to stockholders. Today most such reports are pleasing to the eye and easy to understand. More attention and skill should be devoted to this problem by both governmental and institutional officials to the end that the taxpaying and contributing public may be made aware of their obligations and accomplishments.

An excellent example of the possibilities along this line is the annual report of the University of Illinois. Professor Lloyd Morey, Comptroller, deserves the highest compliments on his achievement in presenting to the taxpayers of Illinois a very readable and concise report of things accomplished during the year and of objectives requiring support in the future.

TERMINOLOGY

It is imperative that the terminology of governmental and institutional accounting be modernized in line with recent developments in business accounting. The term *reserve* should be abandoned and more illuminating phraseology used. The following is suggestive:

1. Encumbrance Obligations instead of Reserve for Encumbrances,
2. Allowance for Inventory Shrinkage instead of Reserve for Inventories,
3. Expenditures Authorized instead of Reserve for Authorized Expenditures,
4. Required for Retirement of Sinking

Fund Bonds instead of Reserve for Retirement of Sinking Fund Bonds.

It is noteworthy that there is already a trend toward using Allowance for Depreciation instead of Reserve for Depreciation and Allowance for Uncollectible Accounts or Taxes instead of Reserve for Uncollectible Accounts or Taxes.

Whether the term Surplus also should be abandoned is a moot point.

ACCOUNTING ADMINISTRATION

Many problems relating to system installation, internal accounting control, external auditing, etc. have not been solved by governmental and institutional bodies in a manner acceptable to accountants generally. It is extremely difficult to solve such questions as: What stipulations relative to accounting and auditing should be set forth in the charter of a large city? What are the proper limits of authority for a controller under such a charter? How can the sharp separation of the accounting and the auditing functions be implemented? Should a periodic, independent post-audit by outside accountants be mandatory? How can the selection of a post-auditor who is truly independent be accomplished in a strongly political environment? What are the proper limits of state regulation of accounting over small local governmental units and how can this regulation be implemented?

Hard and fast rules relative to accounting administration cannot be devised so as to fit all situations. Much depends upon the background, nature of occupations and the educational status of the people involved in a given case. Accounting authority and responsibility should undoubtedly be placed in the executive head of the government or institution. Standards should be set by charter, by legislative enactment or by other authority independent of the chief executive to guide him and to limit the area within which

his judgment may be exercised. Standards should be prescribed relative to qualifications of accounting officers, accounting records, accounting procedures, internal control, etc. Periodic post-audits by an independent authority undoubtedly should be mandatory. Standards should be set as to the qualifications of auditing officials, the scope and procedure of the audits and the manner of choosing the chief auditing official, which choice should be independent of the chief executive. The above principles apply to the Federal Government as surely as to State and Local Governments and to Institutions.

RECENT IMPORTANT DEVELOPMENT IN FEDERAL GOVERNMENT ACCOUNTING

There has recently been enacted into law by the Federal Government the "Budget and Accounting Procedures Act of 1950" embodying modernized stipulations relative to budgeting, accounting and auditing for the Federal Government. The act in essence incorporates the recommendations of the Hoover Commission relative to budgeting, accounting and auditing except that it does not establish an office of Accountant General and transfer to him certain accounting duties relative to prescribing accounts and settling claims which currently are performed by the Controller General. This compromise was made in the interests of harmony and to take full advantage of the joint program of the General Accounting Office, the Treasury Department and the Bureau of the Budget for the improvement of accounting and financial reporting in the Federal Government.

The act retains in the Controller General, the agent of Congress, authority to prescribe standards for basic accounting systems, but places in the executive branch the authority and responsibility for the establishment and maintenance of such accounting systems. The Con-

troller General also is required to prescribe basic accounting requirements and to incorporate therein provisions for the integration of the accounting for the various agencies of the Government and the accounting of the Treasury Department. Under the new Act, the Secretary of the Treasury is required to consolidate the accounting results of individual agencies and prepare financial reports of operations of the Government as a whole. The auditing provisions of the Act authorize the Comptroller General to modernize auditing procedures by (1) increased use of on-the-site audits, (2) the full use of selective examinations based upon the evaluation of the systems of accounting and internal control in use by various agencies and (3) the discontinuance of accounts at the General Accounting Office to the extent that the accounting and internal control systems of the various agencies are adequate. The act also authorized the Secretary of the Treasury and the Controller General to prescribe simplified control procedures, where feasible, to replace the present requirements relating to the issuance and countersignature of warrants.

In general, the Act makes possible the continual improvement of Federal Government accounting along the lines of the joint program of the General Accounting Office, the Treasury Department and the Bureau of the Budget. Enforcement of the Act should result in (1) the coordination of budgeting, accounting and auditing efforts, (2) the increased use of performance budgeting, (3) the further use of accrual accounting and other standard accounting practices, (4) the development of complete accounting and reporting systems for the various government agencies and for the central collection of accounting data, (5) the further development of internal control and accountability, and (6) the more effective and less costly post-auditing of

agency and central office accounts and records.

COST ACCOUNTING

Governmental and institutional bodies have been slow to adopt cost accounting. Since the profit motive is absent and political motives of one kind or another are present, the emphasis is upon how much is available for spending rather than upon how much does a given service cost. It is difficult for accountants to get across the idea that expenditures made in part for the benefit of future periods should be separated in the accounts from expenditures made solely for the benefit of the current period and that depreciation and inventory accounting should be applied to the former. Even in those cases where depreciation is disregarded, the appropriation and expenditure accounts should be set up in such a manner as separately to show (1) expenditures pertaining solely to the current period, (2) expenditures for replacements of equipment and structures, and (3) expenditures for additions to and betterments of equipment and structures. Minimum amount limits and minimum life limits can be established to aid in distinguishing between items chargeable to current expenditures and items chargeable to capital outlay.

The question of the benefit of cost accounting in governmental and institutional management often is raised. It is said that certain services must be rendered regardless of true cost. Cost analysis, however, can still be directed toward the control of administrative efficiency with great benefit to taxpayers and contributors. Cost analysis recently has been introduced into Federal Government accounting to implement the determination of project costs and performance budgeting. Cost accounting is widely used in hospital accounting with beneficial results.

Universities are finding cost analysis techniques helpful especially in connection with government contracts. Greater use of cost accounting is essential in governmental and institutional fields if the public is to be given a proper accounting of their money.

UNIVERSITY INSTRUCTION

Needless to say there is a shortage of qualified accountants for government and institutional work. Traditionally political hangers-on have been given government positions without due consideration of qualifications. Salaries offered by governments and institutions have been far below those of private business for comparable work. Steps have been taken in recent years to place government accounting positions on a higher level both as to qualifications and salary.

Universities and colleges should encourage graduates to enter the public service and with this in mind should take steps to provide suitable curricula. The recommended training for an accountant is about the same whether he is to go into private business or into governmental or institutional service. It should be a broad, liberal business training, without narrow specialization, even in accounting. The courses taken by the prospective accountant should include basic material along somewhat the following lines:

A. General accounting, including fundamentals, theory and application, cost, auditing, systems, and problems not to exceed 25% of graduation requirements;

B. General business, including economics, law, industry, statistics, finance, insurance, transportation, economic geography, political science, marketing, and sociology comprising about 50% of graduation requirements;

C. Liberal arts and science, including English, history, languages, mathematics, and physical science comprising at least

25% of graduation requirements.

A limited amount of instruction in governmental and institutional accounting should be included in the above. In the opinion of the author, however, undue specialization in any given subject is to be avoided in the interest of a sound grounding in fundamentals.

This article is not intended to be a complete treatment of the subject. Its purpose is rather to raise questions of

current interest in the hope that study and discussion will be stimulated. The need for improvement in governmental and institutional accounting is still pressing. Members of the American Accounting Association are in a position to render competent service in the development of sound accounting practices. In so doing they will be making a real contribution towards improved governmental and institutional services at lowered cost.

Don't Make a Move

Without notifying us of your new address. A postal card is sufficient. Postal authorities will not forward your copy of the ACCOUNTING REVIEW. Please help us to maintain correct and current mail records.

IN ORDER THAT WE MAY MAKE THE CHANGE PROMPTLY, PLEASE SHOW:

- 1) Name
- 2) Status: (a) Member; (b) Subscriber; (c) Associate (student) Member.
- 3) Subscription Expiration—if a Subscriber or Associate Member.
- 4) Old mailing address
- 5) New Mailing Address (please indicate postal zone number, if any).
- 6) If a Member, your new school or firm affiliation, and your new rank or position.

Unless Your Change of Address Notice Reaches Us One Month Before an Issue Is Mailed, We Cannot Promise to Replace Undelivered Copies.

AMERICAN ACCOUNTING ASSOCIATION
College of Commerce and Business Administration
University of Illinois
URBANA, ILLINOIS

MEASUREMENT OF PROFITS FOR EXECUTIVE DECISIONS*

JOEL DEAN

Professor, Graduate School of Business, Columbia University

PROFITS must be measured differently for different purposes, and the kind of measurement that is needed for many executive decisions is not provided by the conventional income statement. The Bureau of Internal Revenue, the stockholders, and the banks, all want special kinds of information, and generally have custom-made income statements designed to fit their requirements. Management also has peculiar demands to make of income analysis in reaching executive decisions; and the profit statement used by executives to run a business generally conforms more closely to the concepts of economic analysis than to the conventions of fiscal reporting. Many executives are unhappy about the kind of income statement produced by conventional accounting methods and feel that decision-making could be raised to a more sophisticated plane by relating income statements more closely to management's purposes.

This article attempts to examine from the managerial standpoint the major issues of profit-measurement on which economists and accountants have generally taken different positions. Their most important points of difference center on: (1) the meaning of depreciation; (2) the treatment of capital gains and losses, and per-

haps most important in these times (3) the price level basis for valuation of assets (i.e., current vs. historical costs). Some introductory comments on the nature of income and the way that future developments affect present values will illuminate the controversies.

THE NATURE OF BUSINESS INCOME

The role of futurity in economic values and in business decisions underlies all three of these issues in measuring profits. Economists look to the future as the basic source of value of today's assets, and the businessman recognizes that for his decisions the past is irrelevant, except as a forecaster of the future. But the accountant has a problem here. In an effort to maintain sound, conservative "standards of factuality," accountants want to report historical facts and eschew "speculation" about the future.

To an orthodox accountant, net income is essentially an historical record of the past. To an economist, net income is essentially a speculation about the future. Every person knows that his earnings will fluctuate over the years, rising in prosperity and as his abilities grow, and falling in recession and old age. He knows that he can borrow against his future peaks and that he has to save for his future troughs. These expectations govern the amount he can spend now. This amount may be regarded as his real-goods income. In economic terms, he finds the present capital value of his entire future earnings and spends as income this year one installment of a lifetime annuity on that capital value. For corporations, life is eternal, and net

* In preparing this article I have been fortunate in having the able assistance of Stephen Taylor of Joel Dean Associates. In the course of our work with clients, he developed much of the analysis summarized here. He made the profits-deflation study described in the article, and helped draft this manuscript. I am also indebted to the following persons who were kind enough to read the manuscript and make many helpful suggestions: James Bonbright, Philip Brooks, Melvin de Chazeau, and Carl Shoup. Some of this material is to be published in my book on "Managerial Economics" (Prentice Hall).

income can be measured as the maximum amount that can be distributed in dividends (theoretically from now into the indefinite future) without impairing the company's earning power. That is, the concept aims at preservation of stockholders' real capital. To estimate income, then, requires a forecast of all future changes in demand, changes in production processes, cash outlays to operate the business, cash revenues, and price changes (to state cash flows in terms of constant purchasing power). That is, we need a cash budget (adjusted for purchasing power) which forecasts farther into the future than anyone can see. If this were available, a program could be planned for borrowing and investing cash so as to allow for an annual cash dividend payment that would be equivalent to the uniform consumption of real goods that we here conceive of as the index of the firm's income.

This concept of business income is an unattainable ideal, but it shows the importance of future flows in income measurement and it is the right arbiter in choosing the most proximate accounting treatment of specific costs and revenues. The accountant's concept of income, like this one, requires for its measurement a consolidation of dated transactions of cash outlays and cash receipts. But there is a basic difference: the accountant uses *past* transactions instead of *future*.¹

Accountants measure income by finding the difference between net assets at the beginning of the year and net assets at the close of the year. Among the assets, they list cash outlays that were made for inventory, land, plant and equipment, and long-term investments, together with cash on hand, near-cash (marketable securities), and claims that will soon be cash (accounts

receivable, accrued income) or goods and services (prepaid expenses). From the total they deduct some future cash outlays—the definite liabilities and sometimes, contingent outlays. They also deduct part of the amount that had been spent for long-lasting plant and equipment, and say that that part represents the fraction of the original cost that has already been put into production of inventory and thence into cash. The total assets minus reserves and liabilities constitute net worth, the year-to-year change in which is annual income.²

A balance sheet occasionally contains intangible assets such as good will or patent protection, which nominally are anticipation of the future. But their valuation on the books is not closely related to expectations. These accounts originate in purchases of trade names, markets, or patents, and reflect the amounts paid. For conservatism, accountants usually want to write them down as rapidly as profits permit. Good will on the balance sheet of a new corporation may represent promoter's profits or watered stock. As markets are established and profits come in, the good will is written off the books. Thus, the paper good will may be written off as the real good will builds up.

An economist's balance sheet has quite a different interpretation, since it is an attempt to aggregate the future earnings of the firm's properties now on hand. Each asset has earning power by itself. The value of this earning power is hard to compute, but it is certainly not less than the price the asset can bring in the current market. The value of the combined assets is in general greater than the value of the separate assets. This added value depends on the existence of a going organization,

¹ The economist says sunk costs are irrelevant; but sunk costs are not scorned by the accountant.

² Thus, although accountants do not derive the income entirely from past costs, they do limit speculations on future cash receipts to the very certain; guesses on future outlays are sometimes more generous, as when they include contingency reserves.

with trained personnel, established market connections, and effective leadership.³ It may be called good will or "going-concern value," but it is entirely different from most kinds of good will in accounting. The important point is that an economic balance sheet derives entirely from income expectations, while an accounting balance sheet can be viewed as the basic tool for computing accounting income.⁴

As we mentioned above, the uncertainties that crop up in every step of this approach make it suitable for only the broadest profit estimates, but it does provide a guide to "right" and "wrong" in accounting practices for income analysis.

Even though accountants and economists start from widely different viewpoints in measuring income, they could conceivably come up with the same estimates, but this could occur only in a stationary economy, where prices were frozen and where competition insured that cost was a good measure of value. In the real world of business cycles, wars, and technological revolutions, estimates of business income made by accountants and economists are as different as their purposes and approaches. Both kinds of income measurement are important to management, but substituting one for the other is more misleading than is commonly supposed.

DEPRECIATION

Treatment of depreciation is an important instance of this basic conflict. Only in the last fifty years has depreciation been a generally accepted charge against income. As businessmen came to realize that some provision must be made for the future replacement of equipment, some kind of de-

preciation reserve accounting was needed. The accountants' insistence that the reserve be related to the original cost rather than to the cost of replacement—which is usually quite different—gives depreciation accounting full economic usefulness only under the simplest hypothetical conditions of stable prices and foreseeable obsolescence.

The objective of depreciation in accounting is to allocate the total cost of equipment to production during the period in which it will be used.⁵ The effect is to insure that revenues equal to original cost are not distributed as dividends, but are rather put back into assets, such as more equipment or cash. Whether the amount that is thus put out of reach of dividends will actually be enough for replacement is not considered part of this accounting problem. Replacement is viewed by accountants as having no bearing on measurement of profits.

For economists, there are two distinct kinds of depreciation charge. The first is the opportunity cost of equipment, that is, the most profitable alternative use of it that is foregone by putting it to its present use.⁶ The alternative involved in using the asset for one year may be viewed as selling it at the beginning instead of the end of the year. The opportunity cost could then be measured by the fall in value of the equipment during the year. This shrinkage in disposal value, which measures the capital-wastage from postponing its dis-

³ Rarely is the useful life of equipment as long as its possible physical life. When equipment is retired because it is out of date long before it is physically worn out, some firms make two charges: one for deterioration, which is determined by the estimated physical life, and one for obsolescence, which is determined by economic life and makes up the deficiencies in the charges for physical deterioration. Most firms do not distinguish charges for these two causes of retirement, but merely charge depreciation over the shorter period determined by "obsolescence life."

⁵ This is sometimes called "user cost." For a description of several varieties of user cost, see W. A. Lewis, *Overhead Costs*, New York, Rinehart & Co. Inc., 1949, p. 4.

⁴ When the value of the parts exceeds that of the total, it is obviously time to liquidate.

⁶ The valuations of the stock market generally conform to the economist's notions of expected value rather than to the accountant's historical valuations. The market value of a stock is not logically related to its book value and is usually quite different.

posal for one year, produces a depreciation cost estimate which is quite different from straight-line depreciation for an individual year. For example, it is common to charge as annual depreciation one-fifth of an automobile's original cost. Yet the decline in disposal value during the first year is normally nearer to 40 per cent than to 20 per cent of original cost. Inherently it has no relation to cost; disposal value rose during some postwar years, producing negative depreciation costs, from an economic viewpoint.

The opportunity-cost of depreciation depends upon the nature of the alternative. The alternative may be to keep the equipment idle and save it for later years. Or there may be no alternative uses in other places or times, and thus no real cost of using it in its present function. A hydro-electric dam is perhaps an illustration of this kind of specialized and immobile sunk investment. The economic cost of using the equipment for one year, in any case, has nothing to do with original cost and nothing to do with eventual disposal of the equipment—the two important factors in accounting depreciation.

The second kind of depreciation cost is the exhaustion of a year's worth of limited valuable life. In the case of the dam, where there is no opportunity cost, the future useful life (which measures its unique value to the going concern) is nevertheless continually running out. To preserve owner's capital, enough of the dam's gross earnings must be saved and reinvested to shift capital out of the dam into equally profitable ventures, perhaps a replacement dam. The amount of this kind of economic depreciation is not determined by the historical cost of the equipment. It is better measured by replacement value of equipment that will produce comparable earnings. This kind of depreciation is not a cost; the cost was incurred when capital was originally frozen into the plant.

Rather, it is an act of saving, and the amount to charge each year is a financial problem related to past, present, and future patterns of gross earnings, as well as to price level expectations.

Both of these economic concepts of depreciation are important to management. The first, opportunity cost, is needed for operating problems of profit-making, the second, replacement of eroded earnings ability, is needed for financial problems of preserving and administering capital. For neither, however, does original cost play any role in estimates.

TREATMENT OF CAPITAL GAINS AND LOSSES

Capital gains and losses, or "windfalls," as they are often called, may be defined loosely as unanticipated changes in the value of property relative to other real goods. That is, a windfall reflects a change in someone's anticipation of the property's earning power.⁷ Fluctuations in stock market prices are almost all of this nature.

"Property" should be interpreted broadly here to include executive ability, organizational structure, brand names, and market connections. All the assets that comprise the value of the firm are vulnerable to windfall changes. For instance, the value of cash deteriorates in inflation; accounts receivable are hit by defaults not allowed for in bad debt reserves; inventory is subject to fire, flood, price drops, and substitute competition; the value of plant facilities is slashed when competitors install new, cost-cutting equipment; and patent protection can be made worthless by a court decision. The list of possibilities is endless.

⁷ This conception of capital gains as inherently unanticipated is not the tax definition. But definitions that are evidentiary, e.g., increases in market value, are essentially equivalent. It is hard to conceive in principle of a non-capricious capital gain, since capital value is based on foreseeable income. Similarly, capital losses are clearly windfalls, since nobody makes an investment in expectation of a loss.

These are capital losses, which, in a progressive society, are probably larger on balance than capital gains. Many of these risks can be diluted by insurance-type charges, such as surplus reserve appropriations or high depreciation rates. And when conservative managements actually over-insure, the excess eventually appears as capital gains.

A sound accounting policy to follow concerning windfalls is to avoid recording them until they turn into cash by a purchase or sale of assets, since it is never clear until then *exactly* how large they are in dollar terms.⁸ Occasionally major write-downs are made when value has apparently been wiped out; but the chastening experience of 1929-1932 has virtually eliminated the practice of write-ups beyond original cost.

This accounting policy of not recognizing windfalls until they are cashed raises the problem of the proper accounting treatment for non-recurring cash items in the income statement. Many of these items relate to windfalls of preceding years. Accountants are not agreed on whether the validating cash transaction should be charged against income or against surplus. (For a discussion, see *Accounting Research Bulletin 32*, American Institute of Accountants.) But for some types of windfall, such as loss on sale of undepreciated machinery, it has been common to rewrite the former years' statements, allowing for the realized windfalls.

How the windfall is reported in financial statements is not a matter of interest to

economists (as long as they are explained). They are concerned with the future, not the past. The important thing is that gains and losses usually can be foreseen for some time before they are realized in cash.⁹ A fact-minded management must have some sort of balance sheet, if only an estimated one that realizes surprises long before they have become exact enough to be acceptable to accountants. For example, if prices are to be determined with the objective of producing a "reasonable" rate of return on the valuation of investment, they should reflect projectable windfalls even though not yet cashed. Otherwise, a target rate of return based on an historically "factual," but nevertheless fictitious capital value, may lead to later and unpleasant surprises from the resulting price policies.

CURRENT VS. HISTORICAL COSTS

In measuring income, accountants typically state costs in terms of the price level at the time of the purchase, by recording the historical outlay, rather than in terms of the current price level. Various reasons for this have been advanced by accountants: (1) because historical costs produce more accurate measurement of income; (2) because historical costs are less debatable (more objective) than the calculation of present replacement value; (3) because the function of the accountant is to record history whether or not history has relevance for future business or economic problems, but presumably in the hope that it has.¹⁰

Arguments on historical cost accounting have been going on for decades, but never

⁸ Exceptions to this cash-realization rule are (1) valuation of inventory at cost price or market price, whichever is lower—a conservative rule that calls for write-downs during deflation (when market price may fall below cost of inventory) but no write-ups during inflation; and (2) valuation of marketable securities at current market price, a figure that is easily found in the newspapers. But the apparent precision that seems to warrant these exceptions is often misleading as a measure of either liquidation value or earning power of the assets.

⁹ *Accounting Research Bulletin 24* provides for this for intangibles.

¹⁰ The view that accounting is not essentially a process of valuation, but is the allocation of historical costs to current and succeeding periods, has recently had distinguished sponsorship. See *ACCOUNTING REVIEW*, Vol. XI, No. 2 (June, 1936), p. 188. See also *Accounting Research Bulletin No. 33*, American Institute of Accountants, October 14, 1948.

was the debate more vigorous than during the 1941-1948 inflation. This was an extremely turbulent time: business was scrambling to fill postwar demand and was jockeying for new market positions; there was a rush to get new products on the market; capital expenditures were being made at a tremendous rate. The situation was rich with windfall gains and losses, resulting from the violent changes in demand, supply, and price structure. Management needed the best kind of information to keep track of conditions and to plan astutely. Inflation carried prices to nearly double their level of ten years before; a general revision of ideas was called for on the value of a dollar and the meaning of the older assets on the books. One of the significant by-products of inflation was a bitter controversy among accountants, lawyers, economists, and politicians on the truth or fiction of accounting practice in such a period. The argument was a cross-hatch of speculations on legal and moral obligations to investors, tax liabilities, established accounting traditions, future price levels, and political convenience. Out of the controversy came income statements with a rash of special reserves and footnote explanations, and some extraordinary depreciation treatments.¹¹

The implied assumption of most depreciation policies was that we would eventually get back to prewar prices. This assumption seemed quite unreal and irrelevant to most economists, and it was clear that published income statements had only begun to recognize the basic change in the purchasing power of the dollar. With prices on a new high plateau, depreciation charges in terms of prewar prices were carrying only about half the

load of financing postwar replacements, and it was almost impossible to determine what part of the capital investment boom was really adding to the nation's productive capacity.

Statistics of corporate earnings were probably gross overstatements of economic earnings,¹² although the amount of the distortion was difficult to estimate. In a period of inflation, cost of living goes up for corporations as well as for persons. The cost of refilling inventories, replacing worn equipment, and expanding capacity all go up. Yet accounting procedures generally fail to take adequate account of these increases. When inventories and depreciation are charged at original costs, rather than at the higher replacement cost, inventory and plant are revalued as they are turned over. Orthodox accounting vigilantly keeps ordinary revaluations from getting into the profit and loss account—by treating them as surplus adjustments. But when revaluations find their way into the accounts indirectly, by the process of turnover of assets during inflation, they *do* get into the earnings account. These revaluation profits are treated as ordinary business income and cannot in the books be distinguished from other income. Hence, accounting profit overstates real business income, not only during an inflation but for some time after prices have reached stability. It is clearly not enough to deflate the reported income figure by dividing money profits by some cost-of-living index after the manner in which real wages are found. Profits are a residual in a calculation that uses dollars of many different dates—today's cash dollars, last year's inventory dollars, and equipment dollars of many years of prosperity and depression. To measure real profits, all these assets must be stated in dollars of the same

¹¹ Among the latter were U. S. Steel's increased rate of depreciation on original cost, and Chrysler's write-down of postwar plant acquisitions to prewar cost levels before starting depreciation charges.

¹² This view was widespread and was undoubtedly one of the factors that kept stock market prices low relative to current reported earnings.

purchasing power. This is an elaborate operation, and the desirable data on prices, products, and dates are usually hard to estimate. With some expediting assumptions, however, usable approximations can be made. In respect to price-level impacts, three kinds of earnings estimates may be distinguished: (1) jumbled-dollar profits; (2) contemporary-dollar profits; and (3) constant-dollar profits. The earnings reported by conventional accounting are, as we have seen, a jumble of dollars of different dates and usually of different purchasing power.

CONTEMPORARY-DOLLAR PROFITS

The second kind can be estimated by making price-level adjustments that would make the revenues and costs of a particular year reflect dollars of that year's purchasing power. This removes much of the distortion caused by scrambling dollars of different size in the same income statement. Profits estimates, based each year on contemporary dollars would be directly usable for several managerial purposes (e.g., appraising current executive performance). They would also serve as an intermediate step in approximating constant-dollar profits, since a simple deflation analogous to that of converting money wages into "real wages" would be legitimate for practical purposes.

Contemporary-dollar profits are analogous to those that would be shown by conventional accounting for a manufacturing corporation which had no tangible assets, not even inventories. It is assumed that the company buys materials hand-to-mouth at current market prices, and rents equipment at rentals that continuously reflect the current replacement cost of the equipment. The earnings that are estimated by approximating this no-asset situation would represent operating profits in contemporary dollars. This kind of adjustment segregates not only

the illusory gains and losses from price-level fluctuations, but also reveals some of the more permanent capital gains and losses caused by changes in relative prices.

For many enterprises, contemporary-dollar profits can be approximated by a combination of replacement-value depreciation and LIFO costing of materials. Straight-line depreciation of replacement value does not, as we have seen, tackle directly the problem of reflecting economic depreciation in the sense of either user costs or of earning-power erosion. But replacement-cost depreciation is good as far as it goes, even though it doesn't go all the way. It is preferable to original cost depreciation for most management decisions.

Last-in-first-out (LIFO) inventory accounting can, in periods of inflation, help approximate contemporary-dollar earnings. It is now widely used and can qualify as a legitimate method of costing materials for income tax purposes. By the LIFO method, the last materials purchased are the first charged to cost of goods sold, and when the inventory turnover is slow, business income is measured on the basis of more recent prices of materials than under the first-in-first-out (FIFO) method. When prices are rising, LIFO produces a lower income than FIFO (since stated material costs are higher) and when prices are falling it shows a higher income. LIFO thus tends to wash out the paper profits that result from comparing a closing inventory with an equal opening inventory stated at different prices.

But the choice between LIFO and FIFO is still a choice between historical-cost accounting methods, and neither method fully meets the economist's request for a valuation at current market prices. In a year such as 1946, when there was an upheaval in prices accompanied by physical expansion of inventories, LIFO could give closing inventory values and cost of goods

sold with dollars of different purchasing power about as jumbled as those produced by FIFO. Moreover, when inventories are being reduced, cost of goods sold and inventory levels begin to show increasingly ancient and irrelevant prices. To attain the ideal of economic realism, a full restatement of inventory in constant prices is required.

An interesting estimate of the effect of contemporary-dollar profit deflation¹³ was that the figure \$50 billion for total corporate profits for 1946-1948 was 38 per cent fictitious. Nineteen billion was actually inventory profits (i.e., increase in the dollar value of a constant physical inventory) plus under-depreciation (failure to charge enough depreciation for replacement purposes).

CONSTANT-DOLLAR PROFITS

The MAPI study was actually an incomplete statement of the total distortion that had occurred, however, since it neglected the capital losses that inflation had produced in the purchasing power of cash assets. That is, if prices rose 50 per cent between 1940 and 1947, a bank balance of \$1 million in 1947 was worth only two-thirds of the same balance in 1940 in terms of what it could buy and it must turn over 50 per cent faster in order to maintain the same rate of activity. The loss occurs in liquidity safety margins.¹⁴ This and other less important effects should be included

in a complete estimate of profit distortion during an inflation.

Accounting estimates of income can be deflated to constant dollars by three alternative approaches which differ conceptually as well as statistically. These three methods may be characterized as: (1) general index deflation of reproduction costs; (2) specialized index deflation of original costs; (3) single index deflation of original costs.

The first method, which is the most sophisticated and expensive of the three, is a two-stage operation. First, every account is restated at contemporary prices year by year in order to eliminate confusion of scrambled dollars of diverse purchasing power and in order to take account of changes in relative prices that are caused by changes in consumer buying habits and production costs. To do this requires individualized adjustment of each account for changes in prices. The next stage of this method is to apply a general index of prices to the adjusted accounts, which now reflect reproduction costs. This is done to make the current dollars of different years comparable in purchasing powers.

This first method of deflating conventional business income is illustrated by Table 1, which compares the three methods by applying them to two machines that were acquired at different dates preceding the base period of the deflation. Line G shows the results of the first method of machine X and machine Y and their total. Machine X, which costs \$80 in 1938, is stated in terms of the current cost of reproduction, for example in April 1951, by adjusting the \$80 by a special purpose index number which shows that it would cost about \$150 to replace now. This current reproduction cost is then deflated by the current index of the general price level in April, 1951, that is, \$180. The result is \$83½. A comparable procedure for an

¹³ *Inflation and Postwar Profits*, Machinery and Allied Products Institute, May, 1949.

¹⁴ It may be asked why holding cash during inflation is viewed as a loss, since it is also possible to say that the man who holds real assets makes a profit relative to the man who holds cash. This is a relative matter, of course, and depends partly on the nature of the inflation. If inflation is caused by real deprivation, say, after an earthquake, the man who holds an undamaged house has profited relative to most people. But when inflation is the result of a wage-price spiral, nothing is destroyed but the value of cash, and this is most reasonably viewed as a loss relative to the ability of wage earners and real goods owners to buy consumption goods.

TABLE 1
THREE DEFLATION METHODS ILLUSTRATED
(Hypothetical data)

	Ma- chine X	Ma- chine Y	Total
Date of acquisition.....	1938	1934	
Price data:			
A. Original cost.....	\$ 80	\$ 60	\$140
B. Replacement cost in base period (e.g., 1936-1939).....	100	100	200
C. Replacement cost in current period (e.g., April, 1951).....	150	200	350
General price level:			
D. At acquisition date.....	70	60	
E. In base period.....	100	100	
F. In current period.....	180	180	
Deflated cost:			
G. By first method, deflation of current cost of replacement, $\left(\left(A + \frac{A}{C}\right) \div F\right)$	83 $\frac{1}{3}$	111	194 $\frac{1}{3}$
H. By second method, replacement cost in base period, $\left(A + \frac{A}{B}\right)$	100	100	200
J. By third method, deflation of original cost, $(A \div D)$	114	100	214

identical machine which happened to be bought at an earlier period and a lower price level, e.g., 1934, produces a different deflated cost, namely \$111. The total on line G, \$194 $\frac{1}{3}$, represents what the two machines would have cost in 1951 had the general price level remained unchanged from the base period.

This elaborate procedure is justified only on the assumption that the price structure shows year by year the relative expected earning power of different productive assets such as buildings and machinery. The assumption implies that prices are fully flexible and that there is never rationing (either public or private) of scarce goods and never excess capacity for excess inventory. But as we know, price rigidity is quite general in the real world and thus the results of this deflation give an un-

justifiable illusion of precision which is not generally worth the clerical cost. A second difficulty with this method is the classic problem of finding an index of the "general price level." In modern economic theory, the problem is, by its nature, insoluble and even the approximate "price level" has meaning only by use of unrealistic assumption.¹⁵ But in spite of these theoretical objections, everyone uses index numbers and the practical problem is to construct one that makes the most plausible assumptions about fixed purchase patterns and that has the minimum distortion from the theoretical model of index chosen. The problem is difficult enough for a consumer's index where the ultimate purpose of money is clear. But the concept of a corporate cost of living is a matter of deep speculation that has hardly been touched so far in theoretical discussions.

The second alternative method, which is less costly but harder to rationalize, is justified by the difficulties in the conceptually pure version of deflation. By this method, original cost is deflated by specialized indexes. Thus changes in relative prices that are so fastidiously recognized by the first method, are deliberately eliminated from the income estimate. As a result all accounts are stated in terms of their prices during some base period, say 1936-1939. The assumption in this method is that the average structure of some fairly stable period is more significant than relative prices of any one date as a common denominator for combining physical quantities of bricks, steel and machinery. These physical quantities are themselves taken to measure the real wealth of the company and the problem of the general price level is cleanly side-stepped. Thus in Table 1,

¹⁵ A recent discussion of the index number problem is found in M. J. Ulmer, "Economic Theory of Cost of Living Index Numbers," Columbia University Press, New York, 1949.

machines X and Y are stated at their actual cost during the base period, \$100, rather than, as in the first method, at what they would have cost this year had the price level not changed in the base period. While this concept affects the changes in products and technology that the first tries to catch it is considerably less costly to apply and no more of a strain upon our credulity. Like the first however, it is an attempt to measure the value of property rather than its cost.

The third method, still cheaper, is to apply some single index to every item in the account, using the price level of the date of entry. This method takes no cognizance of the price movements of particular commodities and merely states the sacrifice or gain in general purchasing power incurred at the time of particular transactions. It is thus a historical record cost stated in constant dollars. Whatever uses it has depend on the usefulness of any historical cost record.¹⁶ In the illustration in Table 1, the original cost of the machines is deflated by the general price index of the time that they were bought to show what they would have cost at that time if prices in general had been at the base period level.

In practice the real choice of deflation methods lies between the second and the third. The first method is put out of the running by its high cost, its lean plausibility, and the difficulty of establishing replacement costs for old machinery. The second method is given strong support by our knowledge of the many ways in which pricing practice differs from the theory of competitive pricing. The big differences in price behavior for different commodities over the last decade can be explained much better in terms of differing types of competitive structure than they can by differ-

ences in consumer demand. The important problem in the second method is the choice of a significant base period. The single virtue of the third method is its simplicity, which may offset its inaccuracies for short period comparisons.

The second kind of total deflation to real terms has been tried by the author for three of the largest electrical manufacturers for the period 1935-1947. All assets were stated in terms of their 1935 price levels by deflating each major group of assets by means of an appropriate price index. Changes in the companies' total net assets from year-end to year-end, plus dividends, and minus new capital funds added (also stated in 1935 dollars), gave a measure of their real profits. This method of estimating real earnings eliminated from the accounts the reported profits caused by inflation of inventory dollar values that meant nothing in real terms; it eliminated the apparent expansion of facilities that merely reflected the high cost of equipment, and it brought out the loss in real value of cash assets.¹⁷

The results of the study are given in Table 2, where the aggregate reported income is contrasted with the same income stated in dollars of constant purchasing power, and with the real profits derived by the complete deflation process. The contrast between the apparent and real course of events is striking; it is the result of a long and continuous rise in the price level. The surge of prices from June, 1946, through 1947 is reflected in the dramatic

¹⁷ Such an analysis raises many problems of methodology which cannot be discussed in detail here. The most important of these are (1) the choice of appropriate price indices; (2) choice of a base period for the indices which reflects adequately the researcher's notion of a "normal" relation of prices among the various types; and (3) the degree of refinement that seems worth while in the separate deflation of asset accounts, considering the rough applicability of the price indexes to the properties of a few selected companies. The three companies studied were General Electric Co., Westinghouse Electric and Mfg. Co., and Radio Corporation of America.

¹⁶ A well-known deflation study using a single index in this manner is R. C. Jones, "Effective Inflation on Capital and Profits: Record of Nine Steel Companies," *Journal of Accountancy*, January 1949.

Year

1935.
1936.
1937.
1938.
1939.1940.
1941.
1942.
1943.
1944.1945.
1946.
1947.
1948.

Total

(

gap
for 1
pani
cash
peno
gene
showIt
flat
econ
pani
only
gain
valu
emp18
tion
for
of ass

TABLE 2
BOOK VS REAL ECONOMIC EARNINGS
3 MAJOR MANUFACTURERS OF ELECTRICAL PRODUCTS
TOTAL EARNINGS AVAILABLE FOR INTEREST AND DIVIDENDS
YEARS 1935-1948

(Thousands of Dollars)

Year	a General Electric Co.		c Westinghouse Electric Corp.		e Radio Corp. of America		g Aggregate	
	Per Books	In Con- stant (1935) Dollars	Per Books	In Con- stant (1935) Dollars	Per Books	In Con- stant (1935) Dollars	Per Books	In Con- stant (1935) Dollars
1935.....	\$ 31,020	\$ 30,302	\$ 10,802	\$10,830	\$ 5,518	\$ 5,408	(a+c+e)	(b+d+f)
1936.....	46,152	39,536	14,976	12,495	6,477	5,437	47,340	46,540
1937.....	64,512	39,878	19,294	9,224	7,907	4,391	67,605	57,468
1938.....	28,432	32,266	8,827	11,094	8,778	8,973	91,713	53,493
1939.....	42,764	38,881	14,188	13,230	7,578	7,092	46,037	52,333
1940.....	58,539	45,630	17,709	13,441	9,253	7,437	64,530	59,203
1941.....	60,167	32,541	21,797	8,408	10,466	5,714	85,501	66,508
1942.....	51,637	23,660	17,912	2,567	12,094	2,010	92,430	46,663
1943.....	50,865	30,953	25,299	11,670	16,181	5,811	81,643	28,237
1944.....	57,544	27,764	25,701	12,024	9,747	3,576	92,345	48,434
1945.....	58,666	22,031	28,188	10,203	11,812	5,942	92,992	43,364
1946.....	42,385	5,604	6,896	(13,544)	11,216	2,485	98,666	38,176
1947.....	102,681	(8,190)	51,988	(12,312)	19,300	(829)	60,497	(5,455)
1948.....	201,534	58,868	53,907	2,769	24,583	5,060	173,969	(21,331)
Total 1935-1948	896,898	419,724	317,484	92,099	160,910	68,507	280,024	66,697
							1,375,292	580,330

()—Indicates loss.

gap between reported and deflated income for 1947. The disparity varies among companies, according to varying policies on cash, inventory, and postwar plant expenditures; but for manufacturers of this general type, the pattern of profit behavior shown in Table 2 is fairly typical.

It should be noted that this profit deflation is not a complete statement of the economic concept of income for these companies. It adjusts the accounting figures only for price-level changes, not for capital gains and losses in terms of real-goods value.¹⁸ Estimating income, it should be emphasized, is essentially a problem in

forecasting, an effort to avoid the surprises that appear in the form of windfalls. Price adjustments are a refinement of accounting estimates, but the result remains a guess based on secondary evidences of value, namely, quantities of tangible assets.¹⁹

IMPACT ON BUSINESS DECISIONS

The central role that profit estimates play in business decisions gives point to the foregoing critique of accepted accounting practices in measuring profits.²⁰ In

¹⁸ For a discussion of this point, see J. B. Canning, *Economics of Accounting*, pp. 231-232.

²⁰ Accountants are by no means unaware of these problems. A statement of the issues, with a plea for more flexible thinking by accountants in the face of major price changes, is given in G. O. May, *Business Income and Price Levels—An Accounting Study*. American Institute of Accountants, July, 1949.

¹⁸ The first deflation method described above, deflation of reproduction costs, yields a partial adjustment for windfalls, but of course does not include writedowns of assets that are not worth replacing.

general, the kind of profit measurement needed for most business decisions comes closer to the ideal of the economist than to the practice of the accountant. Without an understanding of these underlying conceptual conflicts between accounting conventions and economic analysis there is danger that accounting profits will influence business thinking in areas beyond their proper realm. Accounting is designed for special purposes of financial analysis and for codifying public regulation and tax administration. The legal consequences of accounting are so important that great uniformity and general agreement in practice are demanded.

But to carry these exacting requirements into fields of general economic analysis in shaping business policy is often to parody or obscure the real nature of a highly uncertain situation. It can easily confuse a management unsophisticated in the relations of accounting to economic reality.

CONCLUSIONS

Contrary to joining in the condemnation of corporations for having two sets

of books, this analysis suggests that the company needs in these parlous times of price level upheaval three sets of books or even more to show: (1) statutory income (for tax purposes); (2) accounting income (computed by conventional accounting procedures); and economic income (deflated to dollars of constant purchasing power).

The basic weakness of accounting reports for economic analysis is that accounting is, as its name implies, an historical record, whereas economic problems of management have to do with the future. As a result, economic ideas of income, assets, and net worth are not measured by the conventional financial reports. It would, however, be a mistake to try to shape financial accounting to fit economic concepts. Management problems take innumerable forms, and an accounting system that would fit them all is hard to conceive. The accounts should instead be viewed as a source of basic historical data that can be adjusted and combined in different ways to different particular needs.



V
best
dere
not
arti
oper
the
the
of s
cour
T
foun
and
This
mitt
the
divi
sion
all p
effor
H
aske
an a
H
tor's
W
in th
H
sent
In
tion
upon
conc
my
swen
disc
give
such
ful.
not

THE AUDIT REPORT

I. B. McGLADREY

McGladrey, Hansen, Dunn and Company

WHEN preparing audit reports I have often wished for help as I did not think I was doing the best kind of a job on them. I have wondered whether other accountants might not have felt the same. The purpose of this article is to stimulate interest in a co-operative effort through the facilities of the American Institute of Accountants, of the American Accounting Association, and of state societies of certified public accountants to give this help.

These organizations have had a profound influence in developing accounting and auditing standards and techniques. This has been done through their committees and permanent staffs, also through the devoted work of many of their individual members. I am sure our professional organizations would be glad to give all possible assistance in this kind of an effort also.

Here are some of the questions I have asked myself regarding the preparation of an audit report:

How best to indicate clearly the auditor's responsibility?

What information should be included in the report?

How should the information be presented?

In the following remarks on these questions I shall give my own views on points upon which I have arrived at any tentative conclusions, not with the thought that my ideas should be accepted as the answers, but for the purpose of getting the discussion started. On other points I shall give such information as I have, and make such suggestions as I think might be helpful. It will thus be seen that this article is not expected to be very conclusive. Before

starting to throw rocks at me on this account, however, I hope you will remember that it is intended to develop questions, stimulate discussion and promote an effort to get answers to the questions rather than to try to give the answers myself.

HOW BEST TO INDICATE CLEARLY THE AUDITOR'S RESPONSIBILITY?

The profession has, during the past few years, taken two great forward steps which have a very direct bearing on this question. One of these was when in 1939 the American Institute of Accountants amended Rule 5 of the Rules of Professional Conduct to read as follows: "In expressing an opinion on representations in financial statements which he has examined, a member shall be held guilty of an act discreditable to the profession if . . . his exceptions are sufficiently material to negative the expression of an opinion."

Before that an accountant could, and very frequently did, make a very sketchy examination, and then give a "certificate" (opinion) containing a phrase something like this: "Subject to the qualifications in the foregoing comments, in my opinion the attached statements fairly reflect. . . ."

The public had not liked this weaseling, however, as is shown by the following bit of doggerel which I first heard twenty-odd years ago:

"The Accountant's Report"

"We have audited the balance sheet and here is our report:

The cash is overstated, the cashier being short;
The customers' receivables are very much past due,

If there are any good ones they are very, very few;

The inventories are out of date and practically junk,

And the method of their pricing is very largely bunk;

According to our figures the enterprise is wrecked. . . .

But subject to these comments, the balance sheet's correct."

Ten years after the correction of the unsatisfactory condition satirized in the above verses, a second great advance was made. This was the adoption of Statement on Auditing Procedure No. 23 by the American Institute of Accountants' convention at Los Angeles on November 1, 1949. The first step prevented the accountant from weaseling when he gave an opinion, and the second required him to make clear whether or not he could express an opinion.

In this connection it should be remembered that many reports are not of the opinion type. A very great number, perhaps the greater portion of reports put out by certified public accountants, are not based upon an examination sufficient for the expression of an opinion and will be required by Statement No. 23 to contain a disclaimer of opinion.

Parenthetically we might consider here the question that has often been raised as to why anything less than a complete audit should ever be made.

The answer to this, it seems to me, is that if a client does not need to use the report with third parties, he should be free to arrange for whatever degree of verification he believes he needs for his own purposes and wishes to pay for. A word of caution is necessary in this connection, however. A client may believe he does not have to submit the report to third parties, but his circumstances may change and he may take it over to the bank the day after he gets it. I have seen many cases of this kind.

It is therefore clear that the auditor should prepare his report so that no one

need be deceived in any case. This is provided for by Statement No. 23. Of course, that Statement does not automatically protect the third party. He must at least read the disclaimer of opinion.

Suppose a businessman told his accountant that he wanted an examination made covering everything but, say, inventory and payables and he has no inventory control records. The auditor should state the omissions in his examination and that their materiality precludes the expression of an over-all opinion. Now, if the client should change his mind and take the report to his banker and the latter failed to read the scope and disclaimer, could he blame the auditor because he was foolish enough to rely on the report in case the business was actually insolvent, as could easily be the case?

In any discussion of the accountant's responsibility it should not be assumed that the client has no responsibility for the representations in his own financial statements which have been audited by a certified public accountant. Quite to the contrary, the client's responsibility in this connection is greater than that of the accountant. However, the public looks to the accountant as a disinterested, independent, skilled investigator who is capable of forming a professional opinion as to the fairness of the representations in the financial statements which he has examined. He is not expected to assume anyone else's responsibility, but he has a definite responsibility of his own in this connection, of which the public has a right to be definitely informed.

A point in this connection might be mentioned. There is usually a wide difference in practice in one particular between the large accounting firm and the small one, and consequently in their viewpoint. The large firm thinks of the audit as an examination of the financial statements which have been prepared by the

client; the statements are therefore the client's statements. The small practitioner in most instances audits the financial records and then prepares the statements. He therefore usually thinks of the financial statements as his own. I know we do in most of our reports, because they are our statements. That does not relieve the client of any responsibility for them, however. They are prepared from his accounts and he is primarily responsible for the information shown in the accounts.

The most important point of all regarding an audit report, the unequivocal expression of the accountant's responsibility for financial information put out in connection with his name, having now been definitely resolved by Statement No. 23, there remains the question of how best to put it into practice by clearly indicating this responsibility in the report.

In order to clarify his responsibility the accountant may do any one of three things in accordance with the circumstances.

(1) He may give an unqualified opinion. This means in effect that he says to his client and to third parties, "I believe the financial statements give a picture of the financial position and results of operations upon the fairness of which you may rely."

(2) He may give an opinion with exceptions. This means that he believes the financial statements may be relied upon with certain exceptions which, however, are not material enough to negative the over-all opinion.

(3) He may give a disclaimer of an opinion. This means that the scope of his work was not sufficient for him to express an over-all opinion on the financial statements taken as a whole, or that some other circumstance prevented the expression of such an opinion. No particular form is required for the disclaimer. Any wording which clearly indicates that no opinion can be given and which states the reason why is satisfactory. Such dis-

claimer may, in the case of financial statements submitted on the stationery of the accountant *without comments of any kind*, consist of a warning such as "Prepared from the books without audit," appearing prominently on each page of the financial statements.

There are a number of questions which may occur in connection with this clarification of responsibility. One of these may be as to where the opinion (or disclaimer) section should go in the report. Another is whether in the case of an opinion with exceptions, the exceptions should be stated in the scope section or in the opinion section or in both.

But probably with the bulk of the smaller practitioners the most burning question of all will be how to give the necessary disclaimer in the case of a non-opinion report without appearing to cast an unwarranted reflection upon the report as a whole. I am afraid many of the members of the large accounting firms have little idea of the proportion of non-opinion reports put out by such practitioners. In many if not in most cases, the overwhelming majority of their reports are non-opinion. This will explain why the last-mentioned question is so important to the little fellow.

While we can approve of the desire to avoid any undue disparagement of the statements, it should be kept in mind that there must be an unequivocal disclaimer of an over-all opinion and the reason why must be stated. Any assurances which may be included in the report as to the dependability of certain items should not be given in such a way as to obscure the importance of the general disclaimer. This should be remembered in the giving of so-called "piece-meal opinions."

Examples of our firm's attempts to solve the problem of evolving disclaimers for different types of non-opinion reports

which would cast no undue reflection upon the statements while endeavoring to avoid the likelihood of unwarranted dependence being placed upon them were given in an article which appeared in the July 1949 *Journal of Accountancy*. Mr. L. G. Kelly discussed this question in a recent paper on experiences with Statement No. 23. The research department of the Institute has been collecting material for the purpose of issuing a bulletin in this connection.

It is to be hoped that continued efforts will be made to develop the best presentations applicable to the various situations encountered in efforts to accomplish the fundamental change in reports required by Statement No. 23. Those who believe a report should be entirely individualistic may object to this as an attempt at regimentation. Admittedly such examples would have to be modified when necessary to fit any unusual instances, but I think there is no way in which we can help our fellow accountants more with the preparation of reports than in things like this.

WHAT INFORMATION SHOULD BE INCLUDED IN THE REPORT?

Reports are commonly divided into two principal classifications based upon the extent of information which they contain. A brief outline of these two types and the purposes they are intended to serve might be of value before getting into the discussion of this question.

The following is a summary of what seems to me to be the minimum essentials of a report:

- (1) Scope and opinion (or disclaimer of opinion if the scope is insufficient).
- (2) Financial statements—balance sheet, and statements of income and surplus.
- (3) Notes to financial statements (when necessary).

These are, I believe, the "bare bones" of a report, and should be sufficient to give a general picture of the financial facts.

They would constitute a short form report. This is a customary form for published reports.

For certain purposes, however, additional information is desired. A banker, for instance, would not ordinarily be satisfied with that amount of information if he were considering a line of credit. A report containing such additional information is commonly called a long form report. There are many purposes for which such reports are prepared, but the overwhelming majority of reports of smaller practitioners are intended for the use of credit grantors. I doubt whether this is generally true, however, in the case of large accounting firms.

It seems to me necessary to consider carefully the purpose of any long form report before beginning its preparation, since the purpose should dictate the type and extent of information to be included.

In deciding whether to prepare such a report I think the accountant should carefully consider whether such a report would be of value to his client and should find out also whether the client really wants it. Perhaps in the case of large companies the answer will very often be in the negative, but I believe the great majority of small clients will be benefited by a long form report. This is because the small company frequently has no one in the organization capable of assembling the additional information in proper form. Such information is usually of great value to the management, and is especially desired by third parties who may use the report for credit purposes.

Information in addition to that given in the short form report usually consists of explanatory comments and appendixes. Additional schedules in support of the balance sheet and income statement may also be included in order to furnish more detailed information in connection with these exhibits.

It may be noted in passing that in actual

pract
line
short
I
firm,
the
consi
of th
kind
and
inform
the f
forma
We i
paris
positi
and
vario
We
this m
other
opera
may
a suff
cant
other
inform
the u
lieve
I h
form
tion
pract
how t
most
A
inform
see in
the g
these
real
way
impro
has in
accou
bette
exam
verifi

practice there is not always a very clear line of demarcation between long and short form reports.

In the long form report adopted by our firm, the explanatory comments follow the financial statements. They usually consist of a brief history and description of the organization under audit, including kind of business, trade territory, officers and directors, and then supplementary information relative to various items in the financial statements, and general information such as insurance coverage, etc. We include as appendixes various comparisons of operations and of financial position, statements showing the source and application of working capital, also various kinds of statistical information.

We believe additional information of this nature is of great use to bankers and other credit grantors. Comparisons of operating results, financial position, etc. may be of especial value when they cover a sufficient number of years to show significant trends. I should like to hear from others as to the nature and extent of the information in the long form report for the use of credit grantors which they believe to be most valuable.

I have mentioned that this type of long form report comprises a very large proportion of all reports put out by the smaller practitioner. An extensive discussion of how to prepare it so as to serve its purpose most fully should be of great value.

A considerable part of the additional information that credit grantors like to see in an audit report will be included in the general comments. Improvement in these comments would, therefore, be of real help to third parties. There is one way in which I believe they could be improved. A great part of such comments has in many cases consisted of a running account of verifications made. I think a better place for this is in the scope of examination. Everything pertaining to verifications made should be in that one

section so as to make it easier for the reader of the report to understand the kind of job that was done. As explained later under "Report Arrangement," I think the scope section should come first and should not be a part of the general comments.

A good rule for what to put into the general comments is to include everything there is room for that is known to the auditor which will help third parties to evaluate the report. Illustrations of this are the aging, turnover, credit terms and distribution of accounts receivable, and the classification, location and turnover of inventories, also anything that may be known as to their condition. Anything that the auditor knows pertaining to the liquidity of the business that is not shown in the statements will usually be valuable, particularly to short term credit grantors, and information concerning contingent liabilities more detailed than that included in the balance of the report may often be made a part of the general comments.

Nothing should be put in to fill up space. If there is nothing pertinent to say about an item, no matter how large it looms on the balance sheet, why mention it in the general comments?

One more point in regard to what information should be included in the report might be discussed. This is the question of how much detail to give in stating the scope of examination. In long form reports in which an opinion is given, one method is to employ as the first part of the scope section the terminology recommended in Statement on Auditing Procedure No. 24:

"Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances."

This brief summary is then amplified with a full but concise description of the actual auditing procedures employed in the examination. Those who use this

method believe it is a great help in understanding the type of examination to have all of the information regarding it in one place.

I know that many accountants think it is not necessary to give a general description of the scope of work. They believe the brief standard scope quoted above is sufficient, and that to explain further is undignified and unprofessional. All bankers whom I have contacted, however, say they want a more complete description. Is it desirable to standardize and stereotype the scope in the long form report as is commonly done in the short form? Isn't the long form report designed to give more information in general, so why not in regard to scope? In any event wouldn't it be well for our professional organizations to try to find out why bankers seem to want more than the standardized scope in the long form report?

In the case of non-opinion reports I believe the reader will usually appreciate a concise but sufficiently comprehensive description of the work done.

HOW SHOULD THE INFORMATION BE PRESENTED?

This might be called the \$64.00 question. It involves so many factors that it will not be feasible to consider them all in the space of this article. However, it seems to me that the general answer to the question of how information should be presented is that it should be done in such a way that the report will be most readily understood by the reader. In other words, it should be presented as clearly as possible. One of the most effective ways to improve the clarity of audit reports, it seems to me, is to promote a reasonable degree of uniformity as pertains to report arrangement, statement form and terminology.

I may be rushing in where angels should fear to tread, but I shall venture to give my ideas on a few of the phases of this subject for whatever they may be worth.

Report Arrangement

To begin with I shall follow the Yankee tradition by attempting to answer this question of arrangement in part by asking some questions. What is the most important thing about a report to the third party who uses it? Isn't it whether he can depend upon it? Then shouldn't the scope and opinion (or disclaimer) come first? Shouldn't the reader know whether the auditor thinks the information submitted is dependable before he begins to consider it?

It shouldn't be unreasonable for the reader of various audit reports put out by different accounting firms on different companies to expect to find, not only the accountant's scope and opinion (or disclaimer), but also the balance sheet and other financial statements in about the same relative location in each report. Why should a reader have to wade through a report from beginning to end before discovering whether or not the accountant believes the financial picture submitted is dependable? Why shouldn't he know about where to expect to find other information in the report? This is more important in the long form report, but has some bearing in all reports. It is particularly applicable in the case of the audit report for credit purposes.

One specific question in connection with report arrangement in its bearing on disclosure of the accountant's responsibility might be noted. In long form reports information is frequently included which is in addition to that intended to be covered by the opinion. The additional information is usually of great value to credit grantors, but such a report should be so worded and arranged that the portion of the financial information for which the accountant assumes responsibility for fairness of presentation is clearly differentiated from that for which he does not.

One way to accomplish this is to start the report with the scope of examination

and the opinion which is signed manually. This section is then followed by the financial statements for which the auditor assumes responsibility for fairness of presentation. Additional explanatory and statistical information in the form of comments and appendixes could then be given with a preceding explanation that such information was not covered by the opinion, in the event that sufficient auditing tests had not been made in this connection.

The arrangement of audit reports, particularly the long form report, can never be governed by inflexible rules. It would not be desirable to do so, even if it were possible, since each job has particular features which require individual presentation. I believe this does not prevent us, however, from developing general principles applicable to the logical arrangement of reports so as to make them more useful to third parties. This is especially true with reference to the type of audit report commonly used with banks.

There is a bewildering diversity in the form of audit reports. I have read two books recently published, *Accounting Techniques* and *Modern Corporate Reports*. I think a perusal of these two volumes will convince the reader of the lack of any general uniformity in the presentation of financial facts. It might also convince him of the need of arriving at some agreement as to general principles and practices in preparing such reports.

The usual answer to any suggestion for attempting to secure some degree of uniformity in the approach to the preparation of the long form report is that differences in basic facts and circumstances make it difficult if not impossible to secure uniformity. The individual nature of each job is stressed and the consequent necessity for a tailor-made report in each case.

It seems to me that this reply may be an oversimplification of the problem. While on the one hand no accountant in his senses would think of recommending

stereotyped long form reports, on the other hand does this prevent any attempt to obtain more understandable audit reports through some effort to lay down general principles in the preparation of such reports?

I think neither rigid uniformity nor the present anarchy is desirable, and that the problem of the logical arrangement of information in the audit report deserves serious study.

Statement Form

Another place where I believe the reader of audit reports has the right to expect reasonable uniformity is in the form of the financial statements included. Appropriate committees of the national professional accounting organizations have done much to bring about uniform handling of accounting transactions. However, there still remains much to be done in connection with financial statements. As an example, accountants have not yet agreed among themselves as to the presentation of an income statement. Some advocate showing surplus changes at the foot of the operating statement for the rather embarrassing reason that accountants have not yet agreed among themselves as to the inclusion or exclusion of extraordinary items from net income. Other accountants believe that only items applicable to income and expense should be taken up in the income statement and that the statement should have as its last figure the net operating result for the fiscal year or other period covered by the statement. My own feeling is that the latter concept is correct, but at least we should agree among ourselves as to which presentation should be used.

In this connection it should be noted that Accounting Research Bulletins Nos. 32 and 35, issued in 1947 and 1948, respectively, deal with this question. In my opinion these bulletins do not solve the problem, however. They register approval

of either method of presentation. It seems to me that this is a case where agreement on the general method of presentation is necessary in order to avoid confusing the reader of the report.

It is evident that I question the decision promulgated in Bulletin No. 35. I think the approval of alternate general practices of constructing the income statement is wrong because I believe the profession should get together on the general form of presentation of this very important statement in order to make reports more understandable to the public.

Agreement on the general form of this statement seems to me to be even more important than which type is chosen. However, as before stated, I favor including all income and expense items in the income statement. Any item which in any period affects net income should, in my estimation, be included in the income statement for the year it is ascertained to be effective; in other words, in the year of "discovery" (which might mean either the year it became known or in which it became legally effective).

It is true that such treatment would frequently result in a final figure which is not the true operating income for that year. I believe there is no fully satisfactory solution for this difficulty. On the other hand, I think the other methods present even greater difficulties.

It might be preferable to show first the normal net income for the year under a designation which would clearly indicate just that, and then to append extraordinary items with a final figure of net income as ascertained for the period. This would at least mean that all income items would appear in some income statement and that nothing but income items would ever be included. It would also show both the normal operating income and the final net figure.

The discussion in Bulletin No. 32 brings

out that the word "income" is used to describe a general concept and not a specific and precise thing, also that the income statement is at best an interim report. Extraordinary items may be "discovered" in one year which really are applicable to some prior year. It is not usually practicable, however, to go back and restate the income for the preceding year or years affected. The next best thing to do, it seems to me, is to show all income items each year in the income statement but to make the division suggested in the preceding paragraph. The account titles of the extraordinary items should clearly indicate the type, also the year to which they apply if different from the year covered by the income statement.

It seems to me the practice of combining the changes in surplus during the year with the statement of operations is not consistent with showing a clear-cut picture of operating results for the period covered by the examination. I believe the income statement is the most important statement in the report. Perhaps the principal function of the beginning and ending balance sheets is to serve as cut-off points so that the operations for the period may be correctly stated. It seems very desirable, therefore, for the accounting profession to get together on the determination and presentation of net income, so that it will not be thought necessary to obscure the clarity of the income statement by combining it with something else.

It might be worth an effort to find out whether it is possible to secure a reasonable uniformity in this as well as in the other important statements in audit reports without destroying essential individuality.

Another point in regard to statement form might be mentioned. One plan is to call the principal statements exhibits, and supporting statements schedules. I believe a report is easier to follow if each exhibit is presented on one page with a sufficient

number of supporting schedules to make this possible.

Incidentally, I may mention that our firm recently changed the size of the pages of our reports to letter size, $8\frac{1}{2} \times 11$ inches. These had formerly been $9\frac{1}{4} \times 11\frac{1}{8}$ inches, and we had had many complaints of difficulty in filing. Our clients and third parties who use our reports seem much pleased by this change.

Mention might be made of one rather conspicuous example of lack of clarity occasioned by the form of financial statements. I refer to the financial reports of colleges and universities. The reasons for the deficiencies in this type of report and some suggestions for improvement are outlined in an article in the August 1949 *Journal of Accountancy*. A rough summarization of the principal difficulty with such reports is that the fetish of fund accounting frequently results in a presentation which causes the reader to bog down in the multiplicity and complexities of the various funds. A clear picture of the financial position, and especially of the operating results, seldom emerges.

Terminology

The presentation of the information in a clear and understandable manner also involves problems in connection with construction and terminology. The clarity of reports would be improved by the elimination of jargon and greater use of words of Anglo-Saxon origin.

The present confusion in the field of accounting and auditing terminology impedes the clear and understandable presentation of information in an audit report. An example of this is the multiplicity of names employed by practicing accountants as the title of the income statement. The very interesting volume entitled *Accounting Techniques* put out by the American Institute of Accountants, covering financial reports of more than 525

corporations of fiscal years ending July 1, 1948 to June 30, 1949, gives on page 59 a list of various titles used during the last three years for this perhaps the most important statement in an audit report. Upwards of a dozen different titles are noted as having been used.

There is no evident reason for this diversity of titles. It would be a help to the public which in general is unfamiliar with financial statements if there was some one authoritative title for this, as well as for each of the other principal statements in an audit report.

A question of auditing terminology was brought out on pages 9 and 10 of the latest edition of Montgomery's *Auditing*. The authors said that use of the term "balance sheet audit" should be avoided, but noted that up to this time a better one had not been suggested.

I agree that a new designation for this type of examination is in order. It seems to me the main dividing line in regard to accountants' examinations is that of whether an opinion can be expressed as a result. I would therefore suggest the term "opinion audit" or "opinion examination." It is likely that a designation of this kind would not be accepted unless accountants come to realize that a very large portion of accountants' reports, probably more than half, are of the non-opinion type. When this is understood, such a division appears natural.

There are, of course, many special types such as "cash audits," "detailed audits," etc., but the above is suggested as a possibility for a broad, general classification to take the place of the inappropriate term "balance sheet audit."

The real need for doing something about terminology was demonstrated at a meeting of a group of accountants which I recently attended. These well known accountants were not even agreed as to what the term "report" meant when applied to

what the accountant puts out as a result of his examination. One thought it means the entire matter put out and another that it applies only to the narrative portion.

The committee on auditing procedure noted in Statement No. 1 that the terms "report," "opinion," "report and opinion" and "certificate" were used interchangeably. This is undeniably true although these words have quite different meanings. Webster's New International Dictionary says a report is "an account or relation especially of some matter specially investigated." This certainly fits an audit report. Webster defines an opinion as a "settled judgment in regard to any point." It will be seen that this definition fits an accountant's opinion perfectly when we remember that the "point" is the fairness of the representations as to financial position and results of operations contained in his report. Webster says the word "certificate" is derived from "certain" which means precise, exact.

How much of a balance sheet (and consequently of the income statement) is "precise, exact"? We know that opinion and estimate enter into the depreciation charge, the allowance for doubtful accounts, inventories and many other items. We realize that accounting conventions govern the presentation of many, if not most, financial facts, also that in some cases any one of several conventions may be used. For these reasons training, experience and judgment are required of the auditor. His is not a mechanical but a professional job.

The term "certificate" tends to belittle the professional status of the accountant by implying that his work is mechanical. The public is apt enough to think this without our helping the idea along with our terminology. It is also misleading since it implies a greater degree of exactitude than the accountant intends to convey. Why not then use the term "opinion" for

what is actually an opinion? Why misuse the English language in order to cast a reflection upon the profession and to mislead the public by implying a greater degree of exactitude than the circumstances warrant?

The word "certificate" is so grossly inappropriate in this connection that it seems incredible that it has persisted so long. Only the inherent opposition to change which seems to be so characteristic of human nature has kept it alive, I believe.

It is likely, however, that before long we will outgrow this absurdity. Many accountants used to begin their "certificate" with the words "We hereby certify that in our opinion. . . ." I am inclined to believe that very few, if any, still do so. We may hope that the profession will in general soon use terminology that is properly descriptive to designate the opinion section.

I would suggest that the word "report" be used to indicate the entire "account or relation" put out by the accountant in connection with his examination (or "matter specially investigated"). The word "opinion" should be used to designate what is actually an opinion. (It seems unbelievable that this has to be argued.) Since we do not actually certify to anything (I hope no accountant still says "I hereby certify that in my opinion. . .") the word "certificate" should no longer be used in this connection.

The dictionaries contain many technical or professional definitions of words which are used in a special sense in certain professions. Thus the word "debt" has, in addition to its normal definitions pertaining to the ordinary use of the word, a special definition to fit its use in legal matters such as expressed by the phrase "an action in debt." Parenthetically a guess might be hazarded that this technical definition accounts for the peculiar term "bad debts" used in tax returns.

We seldom, however, find a technical or professional definition pertaining to the use of words in connection with public accountancy. Perhaps it is time we again became more active in developing technical definitions for some words which have special meanings in connection with our profession. I would suggest as one of these a definition of the word "opinion" as we use it in Statement No. 23. We certainly need such a professional definition. For the purpose of offering something to shoot at I suggest the following: "A settled judgment, based upon a professional examination and formally expressed, that financial statements taken as a whole fairly reflect financial facts." Such a definition could be elaborated to indicate that the opinion may be either unqualified or with exceptions which, however, do not negative the opinion.

Another example of a type of terminology in accountants' reports which might benefit from critical review is the expression "books and records," which is frequently used in such instances as, "We have examined the books and records of. . . ." It seems to me there are two things which may be wrong with this. One is redundancy. What are books but records? The other could be inaccuracy. The client usually has many records other than financial which would not normally be examined in any way in the course of an audit. This may serve as an example of the jargon which is sometimes used by accountants, probably for the most part through habit.

An attempt has been made in recent years to make financial statements more understandable to the average individual who is not familiar with accountants' terminology by changing some of the names used.

A book recently published called *Modern Corporate Reports* contains a chapter entitled "Making Financial Statements Understandable." In this is quoted a

portion of an article by W. Blackie in the March 1947 issue of the *Journal of Accountancy*.

The quotation from the Blackie article told how much thought went into the change of the word "surplus" by the Caterpillar Tractor Co. The final decision was to adopt the term: "Profit Employed in the Business."

It should be observed that Caterpillar's object was to present a report which would be understandable to the stockholders. While I think a continued effort should be made to improve our reports from this viewpoint, I believe a word of caution might be in order. The bankers and credit men who read audit reports put out for credit purposes are generally familiar with ordinary accountants' terminology. Changes in this connection should be evolutionary rather than revolutionary in order to avoid confusion.

I have advocated the establishment of a subcommittee of the committee on auditing procedure to deal with questions of auditing terminology. This proposal has been considered by the committee but no action has been taken as yet. The principal question appears to be how such a subcommittee would function. I may say that I do not believe it should proceed to prepare a glossary of approved terminology for all designations in connection with auditing procedure. I think its functions should be limited to passing upon auditing terminology where the present diversity resembles chaos as in the cases of designating the income statement and the opinion.

CONCLUSION

The purpose of this article is to promote discussion of the audit report at the grass roots of the profession, with particular emphasis on the long form report commonly used for credit purposes. Improvement in these reports is very desirable, I believe. I don't think the answers will all

be handed down from on high. I think most of them must be worked out by suggestions from the ordinary, garden-run practitioner.

If each state society of certified public accountants would put this subject on the agenda for discussion for at least one meeting during the coming year, it would greatly stimulate interest and promote general participation. The only method by which this can be done concertedly, I believe, is for the proper committees, officials and staff of the Institute to urge that this be done and to help state organizations with suggestions for doing it.

It will require a long-continued effort to achieve the desired result. The campaign for the clarification of responsibility embodied in Statement No. 23 of the committee on auditing procedure went through many phases and took just four years from its inception in 1945 to its adoption by the membership in 1949: First, one year of apparently hopeless effort; then publication of the original article, "What Is the Accountant's Proper Responsibility?", in the November 1946 *Journal of Accountancy*; next the publication of the follow-up entitled, "Problems in Assuming Proper Responsibility" in the July 1947 issue of THE ACCOUNTING REVIEW; then the promulgation of the original Statement No. 23 by the committee on auditing procedure in December, 1947; followed by general discussions by state organizations and members; and, lastly, revision of the Statement and its final approval last year. Statement No. 23 consisted of one clear-cut principle. The suggested campaign to improve audit reports involves many phases, most of which must be considered and decided upon separately; hence the likelihood of its taking a long time. In spite of its complexity, I have thought it best to cover the whole problem in this initial article. I think the best way is to take a look at the general situation, and then to consider

and decide upon the inter-related parts of the problem.

From the reaction of accountants to whom I have sent a copy of this article, I am moved to make a plea. I hope the reader will make a distinction between the fundamental suggestions and my own personal preferences regarding relatively minor details. An example of this is the fundamental suggestion that the profession get together on the presentation of income, and the minor detail is my own preference as to how this should be done. Another is the fundamental suggestion for reasonable uniformity in important terminology so as to avoid confusing third parties, and the minor detail is my own personal ideas as to the terms I think should be used. I am putting in my own preferences mainly to get the ball rolling. I know there will be plenty of disagreement with my ideas. I trust, however, that disagreement with my preferences as to such minor details will not cause the reader to overlook the necessity for a careful consideration of the fundamentals.

In closing I want to reiterate that I do not advocate any standard form for audit reports. In my opinion that would be so impracticable as to be absurd. I am repeating this again because of the seeming tendency to assume such advocacy in spite of anything that is said to the contrary. All that I think should be done is to develop general principles applicable to the arrangement, content and terminology of such reports. Long form audit reports are the vehicle of communication to the public of the smaller practitioner especially. Anything that improves these reports would tend to raise the profession in general esteem. There is another angle which, while rather intangible, may be important. The continuance of free enterprise requires the confidence of the general public in financial reports of business enterprises. Improvement in audit reports might be a help in that connection.

COST ALLOCATIONS AND THE DESIGN OF ACCOUNTING SYSTEMS FOR CONTROL*

MYRON J. GORDON

Assistant Professor, Carnegie Institute of Technology

I

W. L. REED of the American Accounting Association's Committee on Statement of Cost Accounting Principles stated, "The purposes of cost accounting are: (1) to assist in the minimization of costs of performance within the business unit, (2) to provide information basic to the determination of net income and financial position, and (3) to aid in the solution of specialized problems of business management."¹ The last two of these three purposes have been the criteria for a long and vigorous debate on the method and extent to which costs should be classified by products in the accounts. Should fixed costs, service department costs, and producing department indirect costs be carried to inventory values? If these costs are classified by product, should the allocations be at each stage in the process of production with reciprocal and multi-step distributions of service department costs and with different distribution bases for each type of cost, or should less elaborate methods be used? The debate on these alternatives in the treatment of product costs has not, however, been extended to the considera-

tion of their merits with the control of costs as the criterion.

At one time it was considered adequate for control objectives to establish and incorporate in the system standard product costs. As long as this thinking prevailed the definition of product costs² for control was not an issue. The standards were simply established for product costs defined for other objectives than control and placed alongside of the actual costs. This practice has not disappeared entirely. Most elementary cost accounting texts still do not go beyond this point.³ Instances can also be found of practitioners advocating systems in which costs are summarized by product, although each product goes through a number of departments and each department works on a number of products.⁴

On the other hand, it is becoming widely recognized that the product is not the appropriate cost unit for control. A product cannot be persuaded to explain its variance, instructed to take corrective action, or fired and replaced by a product that would meet standards. For control the accounting system must provide costs classified by organization.⁵ However, in developing organization costs the defini-

* The author is indebted to Professors W. W. Cooper and Paul Darling of Carnegie Institute of Technology and to Professor Pearson Hunt of the Harvard Graduate School of Business Administration for their suggestions and criticisms. The article represents the personal views of the author.

¹ W. L. Reed, "Cost Accounting Concepts, Introductory Statement," *THE ACCOUNTING REVIEW*, January, 1948, p. 29.

The third purpose might be more narrowly defined as the determination of cost for price and production decisions.

² A unit of cost may be defined to include or exclude any element of cost depending on the purposes for which it is to be used.

³ See W. B. Lawrence, *Cost Accounting* (Prentice-Hall: New York, 1946). Chaps. XVII, XVIII, and XIX.

⁴ See Robert W. Leavitt, "Material and Labor Variances in a Sheet Metal Products Plant," *NACA Bulletin*, May 1, 1948.

⁵ An organization is one or more activities over which an individual has been assigned authority and responsibility.

tion of product costs is considered given by the requirements of financial reporting and the determination of costs for pricing, or it is considered irrelevant for the development of organization costs. As a consequence, there is still no consideration of the definition of product costs which would give rise to an accounting system useful for control.

The thinking that product and organization costs are independent of each other is erroneous for three important reasons. First, the accounting system is one matrix which provides classifications of data for all purposes. Since the resources allowed the accountant are limited, using the system to develop one type of classification limits the resources available for alternatives. Also, refinements in one basis of classification frequently make it extremely difficult to develop understandable data on any other basis.

Secondly, product and organization costs are to some extent necessary for each other. To charge indirect costs to products, if it is desired, they must first be collected by departments. On the other hand, an organization produces products and their costs must be established to arrive at the organization's costs. This immediately raises the question, "To what extent should costs be classified by product in order to have organizational costs useful for control objectives?"

Finally, the accounting system may be used as a control instrument in two fundamentally different ways. The system may be used as a source in the collection, analysis, and interpretation of data for the solution of problems, or the system may be used to provide the answers to problems directly. A different classification of costs by product is appropriate to each role. Consequently, the desirability of a definition of product costs depends upon the usefulness and the limitations of the system in the role which requires the definition.

In this paper we shall examine the use and effectiveness for control of a system in which only direct costs are carried to inventory in contrast with one in which all costs to manufacture are carried to inventory. The former system serves control objectives as a source of data. The system will be outlined and the advantages of it in this use will be analyzed. A by-product of the analysis will be the difficulties of so using a system in which indirect costs are carried to inventory.

The circulation of indirect costs between departments and to products can be explained as a control device only if the objective is to make the system provide answers. The design of a system to serve in this way will be outlined, and some limitations of such a system which the writer has observed will be presented.

The control objectives on the basis of which each of these roles will be analyzed are: (1) the minimization of costs by the supervisors immediately responsible for their amount, (2) the evaluation of the performance of subordinates, and (3) the recognition and elimination of differences between actual and planned costs. The primary objective in cost control is the minimization of costs, but in a large firm where the administration of activity is carried out by a hierarchy of subordinates the system of accounts must also serve the last two objectives.

II

The major characteristics of a system in which only direct costs are carried to inventory are: (1) each cost exclusive of direct labor and material is charged to only one organization account from which it is carried directly to profit and loss, and (2) a minimum of variance accounts are used. As a consequence, the system is extremely simple. Its structure may be outlined by presenting in order the treatment of direct costs, producing depart-

ment indirect costs, and service department costs.

Direct Costs

Direct labor and material are charged to cost centers* at standard prices. The rate variances are collected in one plant account for each type of cost. Standard rates are used primarily for speed and convenience. With complicated pay plans and similar problems in the pricing of raw materials, it would be extremely difficult to charge costs currently to each cost center at actual prices. Further, actual costs need not be periodically classified by cost center, since this is rarely the level of authority immediately responsible for rate variances. A limit is placed on the over-all amount of these variances as a percentage of the actual cost, and whenever this limit is exceeded or the variances run continuously in the same direction for a number of time periods a special study is initiated to determine the cause. The primary records are kept so as to allow the classification of actual costs by cost center and product, if it is desired.

Standard rates are changed periodically to reflect significant changes in wage rates or prices. This is necessary since the choice between alternative methods of production and other uses to which standard costs are put require that they be a close approximation of actual costs. These revisions are feasible due to the simplicity of the system.

The standard cost on each product of a cost center is calculated by determining the quantity of labor and material required for the operation and by valuing these quantities at standard rates. Production is credited to a cost center and

charged to an inventory account or the next cost center at standard. The labor and material variances between the costs incurred by the cost center at standard rates and the standard cost of its output are charged to profit and loss. The costs are not broken down by product for the periodic reports of the cost center, and whether they are so classified perpetually in the accounts depends on the requirements of the company for an accurate measure of work in process in each cost center.⁷ If the direct costs are not continuously collected by product, the primary records are nonetheless organized so that this information can be determined easily by special study. It is also possible to aggregate the actual costs incurred on the different operations required for each end product.

Indirect Costs

With indirect costs, we usually run into a difficult problem of determining responsibility. The situations in which two or more people in different lines of authority affect the amount of a cost by their behavior are quite common. However, there is one individual who has the greatest influence on a cost, and who is expected to inform himself of and adjust to all events regardless of their loci which determine cost. This individual is designated as being responsible for the cost in the organization plan, manual of accounts, etc., and in this system his account is regularly charged with the entire amount of the cost.

⁷ If the work in process is small and stable it can be ignored and the output leaving the cost center can be taken as its entire production. If, on the other hand, the work in process is large and varies from period to period, the charges to a cost center may be classified by production order. The balances in the accounts of the cost center's unfilled orders are an accurate measure of its work in process at any moment of time. This method is generally preferable to taking a monthly or weekly physical inventory and valuing it at standard cost. However, a physical inventory is a substitute for setting up an account for each order.

* A cost center is the organization unit in which the individual in charge administers his activities directly. Since the assignment of authority and responsibility is the primary objective in delineating organizations, no purpose is served by carrying organizational subdivisions below this level.

It thereby follows that service department costs such as maintenance, general plant administration, and power are not allocated among producing departments. Further, depreciation, rent, the supervisor's salary, and similar costs are not charged to the cost center in which they are in the customary sense of the word incurred. Some other individual than the cost center supervisor is primarily responsible for each of these costs.

The above procedure allows a great deal of flexibility and accuracy in the construction of standards. Costs are put in two categories, one for those which vary with output, and one for those which vary by management decision. For costs which vary with output it is possible to select the appropriate measure of production for each cost.⁸ To illustrate, in a machine shop a good measure of output for the use of cutting tools could be machine hours. This would also be a good measure of production for set-up time only if the size of runs was fairly uniform from period to period. If the length of runs varied, the number of setups would be a superior measure of production. At less frequent intervals than the regular reporting period the number of setups could be compared with a standard based on machine hours to measure the cost consequences of the size of runs or poor scheduling of work.

In the calculation of standards statistical as well as engineering techniques may be used. By regression analysis the behavior of each cost with its measure of output may be estimated. The estimates will have a high degree of accuracy if a large number of observations on cost and output are used. The simplicity of the system is of use here also, since it allows the frequent collection of costs necessary

for a large number of observations within a homogeneous period of time.

Many costs vary, but the independent variable is management policy and not output. Management will consider current or expected changes in output, but an administrative decision is necessary to secure a change in the cost.⁹ It is, therefore, unrealistic to use as a standard a functional relation between the cost and output. The standard should be, and under this system is, the predetermined amount decided upon by management. In the reports these costs are segregated so as to focus attention on the source of their variability. The costs are reported at actual and standard, since it is the function of the supervisor to implement management policy.

Service Department Costs

Service departments generally have the following characteristics. (1) It is difficult to establish a meaningful measure of their production. (2) A given level of the firm's output can be realized with various levels of service department activity measured quantitatively by the cost incurred. In other words, the functional relation between a service department's costs and the firm's output is very loose, and for many services, such as research, industrial engineering and even maintenance, there is a considerable lag in the relation. (3) Finally, service department costs cannot be made to change rapidly without serious indirect consequences. Given these characteristics no useful purpose is served by setting up a measure of output and establishing standards for various levels of output. Instead the standard is a predetermined amount set by management on the basis of expected output, financial position, and similar variables. The standard is independent of the actual level of

⁸ If indirect costs are charged to production, the same measure of output must be used for each cost. This question will be discussed further in a later section.

⁹ An illustration of this type of cost in a producing department would be the assistant foremen.

output realized in any time period, but it may be revised by management decision as frequently as desired.

In accounting for service department costs the same procedure is followed as was given for producing department indirect costs. The periodic reports show actual and standard, but the latter is not incorporated in the accounts, and the former is charged directly to income as an expense of the period.

Some service departments do not have the characteristics outlined above. For instance, a firm's own power plant is similar in most respects to a producing department. It is quite easy to get a measure of power production, and for those costs which are a function of output the standard should be based on output. There are even some grounds for charging the cost to using departments if it is metered, if it is a substantial element of cost, and if the amount used in a producing department may vary with the efficiency of the supervisor. However, it is not certain this will contribute toward a more efficient production and use of power. The issue will be discussed further in a later section of the paper.

III

We shall now consider the use of the data provided by the system for control objectives. The use of reports by the supervisor immediately responsible for minimizing costs is fairly obvious. The standards are a means by which he can project the cost consequences of alternative courses of action. The periodic reporting of actual and standard costs provide him with a quantitative measure of the effect on costs of the events of past periods. This information increases his ability to plan activity so as to minimize costs.

An important advantage of the system outlined above is that it can be designed

to provide information at the cost center level of organization without being made unmanageably cumbersome and expensive. In contrast, the circulation of indirect costs between accounts and the use of more than one or two variance accounts make it extremely difficult to construct standards and to frequently report actual and standard costs for the large number of organizational units at the cost center level. If the system is to be of use to the individual immediately responsible for minimizing cost, this is the level at which information must be developed and frequently reported.

Another advantage of the system is the presence in the report of only those costs for which the supervisor is primarily responsible. With his attention focused on a limited number of costs, and the costs those with which he is most familiar, it is possible for him to translate between the operations he supervises and the figures contained in the report. He can be expected to determine the events which caused variances and to estimate the quantitative effect of these events on his costs without the assistance of a cost analyst to interpret the report.

The major disadvantages of the system are: (1) it does not adjust cost for the effect of factors beyond the supervisor's control, and (2) it does not charge the supervisor with costs for which he is indirectly responsible. The successful use of the system, therefore, requires that the supervisor familiarize himself with all the factors which affect the costs over which he has been assigned responsibility. He is expected to recognize and influence with all the resources at his command events outside of his sphere of activity which would cause variances in his cost. This is possible only if the members of management as a whole adjust and coordinate their activities. In other words, the system is not designed so that the supervisor can

consider his cost center a unit isolated from the rest of the firm and expect that variances will appear in his cost report solely as a consequence of his actions. This may be considered an advantage, because the system is not an unreal representation of the relations existing in a business enterprise.

The Evaluation of Performance

The evaluation of the performance of subordinates is a problem which vividly illustrates the contrast between the two ways an accounting system can be used. Where the evaluation is made by the collection and analysis of the relevant data, the burden of the evaluation is placed on the judgment of the person who operates on the data. The conclusion is only as good as the judgment he uses. Where the system is used to provide directly a measure of performance, the result is obtained by the application of a predetermined set of operations on the data, and the evaluation is independent of the person who carries out the prescribed operations.

A system that provides an objective measure of performance has a tremendous appeal for the harried executive. The use of judgment for evaluating performance is a difficult task. Frequently, it is distasteful and occasionally it is tainted with favoritism. In contrast, with an objective measuring device all one needs to do to set salaries and make promotions is read the report and the decisions cannot be questioned from above or below.¹⁰

The proposed system does not provide an accurate measure of performance. For this a set of procedures for classifying the transactions of the firm must be specified

and incorporated in the system which eliminate from the supervisor's variance account the variances due to factors beyond his control. In the system price is the only variance eliminated from the cost center variance accounts. All other variances are present in the one account for each type of cost.

The system is, however, a valuable aid in the exercise of judgment. Good judgment does not originate entirely in thin air; it follows from the collection and analysis of the relevant data. To arrive at a valid evaluation of an individual's performance the investigator must determine: (1) the costs the individual actually incurred, (2) the costs he should have incurred given the conditions under which he operated, and (3) the extent to which he should have modified these conditions. The system automatically provides the investigator with the individual's actual costs and with the costs he should have incurred. The standards are for the realized level of output, for the predetermined policy of management, and for certain values of the other variables which affect his costs.

The investigator must next determine the actual values of the other variables and what costs should have been for these values. Through supplementary records the actual values of other variables such as size of orders, non-standard specifications, and delays can be determined. The simplicity of the system facilitates establishing the required information in two ways. First, once the relevant variables are selected it is possible to proceed to the required data without delay. Secondly, the data are richly classified by types of cost and by time¹¹ so as to provide the

¹⁰ The reader may question whether anyone makes decisions in this way, but no less a person than the president of the American Management Association has complained of the bureaucratic practice. See Lawrence A. Appley, "Management Responsibility for Decision," *Management News*, February, 1950.

¹¹ Costs classified by product or organization may be sub-classified by type of cost, such as labor and material, by time, such as day, week, or month; and by behavior with output. The consequences of emphasizing one major basis of classification show up in the extent to which

large number of observations necessary for the correct use of statistical techniques in determining what costs should have been under the actual conditions of operation.

In determining what variables to look for and especially in determining the reasons why these variables took on non-standard values there is no substitute for the exercise of judgment. To illustrate the problem, let us assume that a supervisor is provided with a new type of material and a variance occurs in the indirect labor used to prepare and deliver the material to the work place. In deciding whether the one event caused the other and what the cost should have been, the analysis of the data by engineering and statistical techniques applied to the particular problem can be expected to yield results which would be superior to those obtained by the arbitrary application of objective procedures. In deciding who is responsible for the material—the purchasing, the engineering, or the producing department—the system breaks down completely as an instrument for providing answers.

The importance of simplicity if the data are to be used in the above way requires some elaboration. The investigation of a problem cannot begin with the original transactions as the basic data, if a solution is to be reached in a reasonable period of time. A function of the accounting system is to put the transactions in a set of general purpose classes which allow the speedy selection of the relevant data for each problem. An essential part of an accounting system, therefore, is a set of rules which allow clerical personnel to put the transactions of the firm in the general purpose classes by routine procedures. The rigid adherence to the rules in classifying the transactions makes the data objective,

but it also introduces assumptions in the data which are not valid for every problem in which the data are used. The analysis of the data, therefore, requires that the effect of the assumptions in the data placed there by the system be understood. The system is simple if these assumptions are few in number and can be readily ascertained. It is then possible for the investigator to manipulate the data under assumptions he introduces because they are necessary to the solution of his problem. If, on the other hand, the data have been extensively manipulated by the system under a complicated set of rules, then the investigator becomes bogged down in the task of determining the assumptions underlying the data and their effect on the data, and he is always fearful that his conclusions are biased by assumptions which have remained hidden in the data. Only technically trained personnel could understand the findings.

Actual and Planned Activity

The recognition and elimination of differences between actual and planned activity is a cost control objective that is not fully appreciated. The goals of an enterprise are accomplished by the formulation of plans and the administration of activity in accordance with these plans. Management can delegate to subordinates the administration of activity, but it cannot delegate the planning function without giving up control of the enterprise. It follows, of course, that control also requires that activity proceed according to plan. In a dynamic environment elements of a plan are continuously being made undesirable or untenable by the course of events. Hence, control requires that departures of activity from plan must be recognized and eliminated.

In a small firm this aspect of control can be handled informally. Management is in direct contact with activity so that in-

sub-classifications of the data for the other unit are developed. That is, collecting product costs limits the extent to which organization costs can be sub-classified.

formation and communication are not serious problems. The data required for the formulation of plans and the recognition of events which require the revision of plans arise from management's experience.

In a large enterprise top management is divorced from activity by the very scope of the enterprise. In this situation it can formulate plans only if the great body of relevant data is organized so that a few people can analyze it in detail and as an integrated whole. A system in which costs are collected by organization and only direct costs are carried to inventory fills this need in the following way. Given a plan under consideration, it is broken down into the production or activity required of each cost center. At this level the historical data on output and costs can be analyzed to provide estimates of the costs involved in the plan. These estimates are then aggregated, finding and eliminating as they appear in the process of aggregation inconsistencies in the plan as an integrated whole for the entire firm.

This use of the system is facilitated by the absence of cost allocations between departments and to products and the variance accounts that arise therefrom. The data is not in a form that is conducive to making false assumptions about the behavior of costs with output. The same cost does not crop up in a number of accounts with the associated problems of deciding where it should be analyzed and of insuring that it is not double counted under inconsistent assumptions.

The formal and explicit statement of the plan that is adopted is a budget.¹² This budget with objectives and costs classified by organization is a set of directives to the subordinates who are responsible for the administration of ac-

tivity. Each subordinate has the management function of recognizing events which jeopardize the realization of his area of the plan, and within the scope of the authority granted to him adjusting to these events. As long as the subordinates are succeeding, activity is proceeding according to plan and the enterprise is in control. However, management can be confident that activity is under control without continuously participating in its administration only if some mechanism exists which recognizes and reports when activity is departing from plan. The standard cost system in operation is this mechanism.

The variances in the periodic reports serve as warning devices by calling attention to breakdowns in the plan as they occur. The reports are frequent so that the lag between the event and its recognition is kept to a minimum. The system serves every level of management in this capacity because costs are readily aggregated and reported at every level of authority. Also the system recognizes variances in the area of activity where they have occurred—the most effective point for initiating an investigation to determine the change in methods, objectives, or in personnel necessary to restore the desired unity between actual and planned costs. Finally, the variances reported by the system are an accurate index of the relative importance of each deviation from plan. In other words, we do not have variances appearing which are false, which are removed from the activity where they occurred, or which are split up among many accounts.

The system, of course, does not tell why the variance has taken place. This can only be done by the interpretation of the data by the individual who wants to know.

IV

We now consider the design of a system for control in which all costs to manu-

¹² The standards that are used in the periodic cost reports to describe what *should have* happened are also used in preparing budgets to describe what *should happen*.

facture are carried to inventory. It is first necessary to differentiate a system in which no control objectives are sought by carrying indirect costs to inventory. Generally, in this type of system inventory is valued at standard and not actual cost, indirect costs are inventoried by use of a simple and uniform burden rate, and the absorbed burden is not related to actual and standard costs classified by organization.¹² The use of full cost rather than of direct cost for inventory values in this situation serves no apparent purpose, since the system produces the same product cost figure that is put into it regardless of what the figure is. For the preparation of financial reports indirect costs in total can be allocated between inventory and cost of goods sold as an adjusting entry with the same accuracy that is achieved by a uniform burden rate.

Cost Allocation for Control

The primary control objective in carrying all manufacturing costs to inventory is the integration of organization and product costs. In preparing a budget a firm establishes prices and makes sales forecasts for its products. The difference between the sales budget and the cost budget is the planned profit for the period. It is customary to develop the cost budget by product in order to arrive at profit figures by product line. In order to insure that the realization of the planned profit is not prevented by the failure to realize the planned costs, all costs to manufacture are included in both the product and the organization costs. As a consequence, the difference between the actual and planned costs of the products will be reflected in the departmental variances.

The system which realizes this control

objective is a combination of the conventional product cost accounting system and the one outlined previously. The organization units for which costs are to be collected are specified, and for each product of each organization standards are established for direct labor, direct material, and indirect costs. The direct costs are estimated as previously by time study and by review of past experience. Indirect costs, however, require a more involved procedure.

To arrive at the indirect cost per unit of product it is first necessary to make a pro-forma allocation of the costs by type among the organizations for a normal or expected level of output. For service departments it is then necessary to establish a measure of output which will allow the allocation of their costs among producing departments. For instance, a measure of the maintenance department's output could be hours of maintenance labor. The maintenance provided to a department is measured by the hours worked for the department. A measure of the output of the plant manager's staff would be the direct labor hours incurred in other departments since it could be used to allocate the cost among the departments.

To establish a service department's costs per unit of output, the estimated total cost, including such items as salaries, depreciation, floor space, and supplies, is then divided by the estimated quantity of its output. For instance, the standard cost of the maintenance department is the average hourly rate of a maintenance worker plus the hourly amount of all other costs incurred in and the costs allocated to the maintenance department. The standard unit cost of the management's staff is the total cost of the staff divided by the estimated direct labor hours in the plant.

The output of a producing department is the products carried to inventory or to

¹² For a system which has many features in common with the one outlined in the previous section, but also values inventory at full cost in the above way, see William E. Perry, "Standard Cost System—Postwar Model," *NACA Bulletin*, April 1, 1947.

other departments, but the measure of this output is some common denominator such as the standard direct labor hours per product. To arrive at the standard indirect cost of a product the total of the indirect costs incurred in and charged to the department is divided by its normal direct labor hours and the cost per hour of direct labor is multiplied by the standard time for the product. Every element of cost is thereby converted into a cost per unit of product.

The system operates as follows. Each department is charged with (1) actual direct labor and material at standard rates, (2) actual indirect costs incurred in the department, and (3) the services of other departments. The cost of a service is the amount used, measured as indicated, multiplied by its standard unit cost. Against these charges, the producing department is credited with its production at the standard cost per unit of product. Service departments would also be charged with their actual costs and credited with the standard cost of their production both as defined above.

To review, all manufacturing costs are charged initially to organization accounts. Organizations are credited with their production at standard, but each credit is offset by an equal charge to another department or to inventory at standard. Therefore, the departments as a whole are relieved of their charges only by the amount of inventory at the standard unit cost that is delivered to the firm; and, the difference between the actual and standard cost of a period's output is exactly equal to the sum of the variances left in the department accounts.

To give this set-up the flavor of reality the charges to a department are called its costs, the credits are called its earnings, and the variance is called its profit or loss. Each department is considered a separate entity which buys, produces, and

sells with the object of maximizing its profit. This, of course, requires that it be charged with all of the costs to the firm required for its activity regardless of where they originate.

Limitations of System

The policy of treating each department as a separate profit maximizing entity is not carried too far. Top management does not rely on the quest for profit to insure that the supervisor will operate as efficiently as he can. Neither does it rely on sustained losses to liquidate incompetent supervisors. Instead, management uses the data provided by the system and other information to make administrative decisions which will minimize costs. However, the variances provided by the system clearly provide no explanation for their existence. In addition to all the other factors beyond the supervisor's control reflected in his variance account, the departmental variance developed in this system is affected by the level of output. In constructing standards it is assumed *all* costs including fixed and semi-variable costs vary proportionately with output.

As a source of data for the analysis of costs and as a warning device the system is inferior to one free of cost allocations. The departmental accounts are burdened with a large number of costs over which the supervisor has little or no control. The data are made confusing by the assumption that all costs vary proportionately with output. The same measure of output is used for every indirect cost incurred in a department, although in many cases it is a poor measure of what the amount of the cost should be. On top of all this, the cost allocations make the system expensive to operate.

Volume Variance

A system in which all manufacturing costs are carried to inventory need not be

as crude as the one just outlined. Frequently, two sets of standards are constructed, one which assumes all costs vary proportionately with output and one which recognizes the behavior of fixed and semi-variable expenses with output. The former standard is required if all costs are to be inventoried, and the latter standard is required to have variances that have some meaning for control. The use of both standards and the additional variance to which they give rise is sometimes justified for control as a means of providing a measure of variance due to volume. Specifically, it measures the difference in cost (the total by type or organization) between what it should have been and what it would have been if all costs varied proportionately with output.

This variance is considered useful for control for three reasons. It tells the department supervisor the amount his costs are increased by his failure to operate at normal. It tells the sales department how much costs are increased by its failure to meet the sales budget. It tells top management how much profit is being lost due to increased unit costs of production. Developing the variance for the first reason serves no control objective, because the cost center supervisor produces what he is given orders for. Failure to make deliveries may be recognized and acted upon through data less difficult to collect. At the firm level the effect on costs of a difference between actual and planned volume can be established without allocating indirect costs between departments and to products and without developing the additional volume variance by type of cost for each department. A difference between actual and planned output requires the revision of costs and not the calculation of what costs would have been if they behaved as they could not be expected to behave. The allocations and variances only increase the difficulty of establishing the informa-

tion needed to revise plans.

Variances by Cause

A more ambitious objective is to isolate the variance from standard caused by the supervisor's performance. This is accomplished by setting up standards for each non-standard operating condition beyond his control, and by charging the difference between this and the standard product cost to the appropriate variance account. We already have the standards for non-standard levels of production. Some of the other variances which are developed are described briefly below.

An order sometimes is produced with non-standard material or non-standard equipment. This will cause actual labor and material costs to be different from the standard at which the department is credited. Standards are constructed for the non-standard practices, and the variances caused by it are charged to the appropriate variance account.

Since the measure of output for indirect costs is a simple common denominator, such as direct labor hours, costs will often vary from standard due to product mix. To cite again an instance used earlier in the paper, setting a machine for a job is classified as an indirect expense. The standard for this cost based on either machine or direct labor hours assumes a certain mix in the size of the runs and the difficulty of the settings. If the assumption is not realized, the actual cost will vary from standard for this reason. Hence, a standard time for each machine setting is established and a standard cost is established by extending the number of settings by the cost per setting. The variance between this and the standard based on a normal mix for the actual output is charged to a product mix variance.

The above are the variances most commonly developed. Space does not allow us to describe others, and, unfortunately,

resources, measurement and similar problems limit the extent to which they can be recognized in the construction of a system. Also, we have only considered the immediate effect on costs of a non-standard value of a variable. For instance, the use of non-standard material will cause not only a labor variance but a variance on all costs which are allowed a department on the basis of the standard direct labor hours.¹⁴

A system so elaborate as the one just described should itself provide control over costs. The major features in its design can be explained only by this objective. Every dollar of cost to be earned must give rise to an equivalent in good products at their standard unit cost. Thus, no element of cost escapes the watchful eye of the system. The variances between actual and standard product costs are classified by department and by cause. Thus, the reasons for the variances are provided by the system.

It is questionable whether this type of system realizes its objective. Management personnel with whom the writer had the opportunity to discuss the subject believed that the determination of causes for variances and the elimination of them was their responsibility. They refused to delegate the responsibility to a system. Further, management frequently found it difficult to understand the operations of so elaborate a system. This impaired their confidence in it and their ability to use the data it developed for more limited objectives than providing answers. To the extent that responsibility is delegated to

the system lower echelons of management are forced to act as if their units were independent profit maximizing entities. The devices they discover for "beating the system" are rarely of benefit to the firm as a whole.

VI

To summarize the conclusions suggested by the discussion, an accounting system can serve control objectives by serving as a warning device which reports when costs are departing from plan, by directing review management to the most effective point for initiating an investigation to deal with the problem, and by providing the general purpose data that can be analyzed and interpreted by all levels of management for the solution of problems in cost control. A system can accomplish far less than this but it cannot accomplish any more. To accomplish this the system must:

- (1) Provide costs at actual and standard classified by organization.
- (2) Provide organization costs down to the cost center—the level of authority immediately responsible for incurring costs.
- (3) Provide in the organization report only those costs for which the supervisor is primarily responsible.
- (4) Provide organization costs classified by type of cost and by time in adequate detail for analysis by statistical techniques.
- (5) Provide data that non-technical personnel, who must use it, can understand.

The realization of these conditions in the design of a system is made extremely difficult if not impossible, if it is also desired to circulate costs between departments, carry all costs to inventory, and develop separate accounts for each variance.

¹⁴ For a more detailed illustration of this type of system see Joseph B. Copper, "Accounting by Causes vs. Accounting by Accounts," *NACA Bulletin*, December 15, 1945, esp. pp. 318-319 and exhibits 1-5. The article describes the installation at the Tennessee Coal, Iron, and Railroad Company.

A
I
to
C
cause
the ex
offerin
Theor
is ach
with

A
why s
Sin

port o
variati
conta
that t
positi
corda
ples.
inter
in th
count
accep
vance
opport
of the
Equal
and c
marie
have

In
areas
row a
quest
our

* T
the An
tember

A COURSE IN ACCOUNTING THEORY*

ROBERT E. WALDEN

Associate Professor, Indiana University

IT IS MY BELIEF that I have been chosen to undertake the discussion of "A Course in Accounting Theory" because I have fairly recently gone through the experience of outlining, preparing, and offering a graduate seminar in Accounting Theory at Indiana University. My debt is acknowledged to the many teachers with whom I have discussed the course.

WHY A COURSE IN ACCOUNTING THEORY?

A question for first consideration is, why such a course?

Since about 1934 the short-form report of the public accountant, in all of the variations through which it has gone, has contained an expression of the opinion that the statements present fairly financial position and results of operations in accordance with *accepted accounting principles*. Throughout this same period great interest has been evinced by accountants in the question "What are accepted accounting principles?"—or even "*are there accepted accounting principles?*" Our advanced students need and deserve the opportunity to make a systematic survey of the development of accounting thought. Equally important is the need to compare and contrast the many statements or summaries of accounting "principles" which have appeared since 1934.

In a number of currently controversial areas the "accepted principles" of tomorrow are under discussion. Many of these questions can only be touched upon in our regular "principles" courses. In a

theory seminar they can be brought to the center of the stage and more searchingly examined.

It is generally agreed that sound theory underlies good practice. For many years the Accounting Practice (or "Problems") emphasis of the C.P.A. examination has tended to focus the attention of our students and teachers upon practice rather than upon theory. This distortion deserves correction. The establishment in 1943 of a separate section in Theory of Accounts in the uniform examination has resulted in a degree of correction. Much greater interest is now being shown in theory on the part of the students preparing for professional accounting work than was formerly the case.

Another group for which the theory course has significance includes the students in related fields, especially that of finance. Too often these students are faced with the alternatives of working into a crowded program several accounting courses in which techniques are stressed and theory is incidental, or of substituting some other field as a minor subject. With a minimum background of elementary principles, such students, if of graduate caliber, can obtain from the theory course the broad view of accounting which they need.

CONTENT OF THE COURSE

Two rather distinct approaches suggest themselves in determining the content of a course in accounting theory. One, analogous to that used in courses in economic theory, would attempt to develop a single unified body of theory and perhaps to point out why existing practices or statements of principles do not

* This paper was presented at the annual meeting of the American Accounting Association in Boston, September 7, 1950.

conform to the theory being advocated. Another approach, analogous to that followed in courses in history of economic theory, would attempt an analysis of theory and applied theory throughout the literature of the subject. Although it would not be accurate to say that the difference might be expressed as *indoctrination* versus *enlightenment*, the connotations of the two terms indicate my preference for the second approach.

Early History

The course might well be started with a survey of the development of double-entry bookkeeping. In addition to aiding the student to see the fathers of our art in better perspective (most of the students know only of Pacioli!) the survey of early history provides background for later discussion of several significant concepts. Among these are the entity convention and its relation to early charge and discharge accounting; the symbolizing of diverse items of property by means of money values and the relation of this to later "valuation" problems; and the early importance of the *venture* in contrast to the later significance of the annual fiscal period.

Economics and Accounting

The second major topic might be *Economics and Accounting*. Here the attempt should be made to review certain economic concepts of especial interest to the accountant—as, for example, *income*, *cost*, *wealth*, *capital*—and to compare and contrast these concepts with those of the accountant. The students should be given the opportunity to see the many areas of close agreement between the two disciplines; similarly, differences should be analyzed and their justification (or lack of it) made clear. In this section the work of Canning,¹ published over twenty years ago, remains invaluable.

Fundamental Concepts

The third major topic in the outline I am developing deals with fundamental accounting concepts. Before going further, I should like to mention that a course of this sort is particularly difficult to compartmentalize. Or perhaps it would be more accurate to say that it is easy to build the compartments but impossible to keep the subject matter contained. It is obvious, for example, that any treatment of *fundamental concepts* must overlap with the succeeding section which deals with *statements of principles*.

In treating fundamental concepts separately, I have in mind a survey of the basic nature of accounting, its functions and its structure such as may be found in Professor Sanders' Chapter I of *Contemporary Accounting*,² Chapters I-III of George O. May's *Financial Accounting*, and Chapters I-V of Stephen Gilman's *Accounting Concepts of Profit*. Here are examined various ideas about the use and meaning of such terms as principles, standards, conventions, doctrines, postulates, etc. This survey, together with the other two major topics preceding it, serves as an orientation course for the more detailed study of *statements of principles* which follows.

Statements of Principles

Several weeks may be devoted to an analysis of the various statements of accounting principles which have appeared since 1934. Although I am not at all sure that any particular order of taking them up is indicated, I suggest studying first the three A. A. A. statements (1936, 1941, and 1948). At the same time each student should read several of the many excellent interpretive articles about these statements. These articles have appeared main-

¹ John B. Canning, *The Economics of Accounting*.

² A.I.A., 1945.

ly in THE ACCOUNTING REVIEW and The Journal of Accountancy.

Next I have taken up the Sanders, Hatfield, and Moore *Statement of Accounting Principles*, and thirdly the Paton and Littleton monograph.³ Critical and interpretive articles also supplement these two documents.

To complete the study of statements of principles I have included a "miscellaneous" section under which are discussed various statements by individuals (appearing mainly in the REVIEW and the Journal), certain of the American Institute Accounting Research Bulletins, and certain S. E. C. materials.

Throughout the study and discussion of these various statements of principles, positions taken and points of view expressed should be compared and areas of agreement and disagreement brought out.

Accounting and the Price Level

One of the currently controversial problems of accounting theory is the impact of price level changes on methods of recording and reporting financial data. This problem probably demands separate consideration in a theory course and I include it here. Of course, it will have been encountered in several preceding discussions; while not avoiding it on such occasions, I do try to stave off a full-scale assault until this point in the course is reached.

There is, of course, no dearth of reference material on this subject and by no means all of it is recent. Some contact with Henry W. Sweeney's work on *Stabilized Accounting* is a "must" in connection with this topic. The major portion of the attention should be given, however, to the more recent literature.

Most of my students are found to be thorough-going proponents of the histori-

cal cost position. Although I do try to be consistent with my general approach of letting each student make up his own mind on controversial issues, at the same time I feel it is especially important that all accountants be well-informed on this matter. Hence, to counteract the established attitude I feel it is pedagogically justifiable to present the price level adjustment point of view rather strongly. Incidentally, I have not made too many converts. In my last two classes the students have been asked to write pro or con on the proposition: Resolved, that the basis for accounting valuations should be original cost. Thirty-eight argued affirmatively and eight contra.

Balance Sheet Items and Income Determination

The next three sections of the topical outline are based on the balance sheet: current assets, fixed assets and intangibles, and liabilities and capital. Although the balance sheet items constitute the point of departure for these discussions, the focus remains fixed on the determination of income as the basic theoretical problem of accounting. There is not a separate topical section on income determination *as such*, and perhaps there should be.

The consideration of current assets includes special attention to the working capital concept and the definitions of current assets and liabilities, as well as extended discussion of inventory problems.

Some matters relating to accounting for fixed assets will have received consideration earlier in the term. There remains, for fixed tangibles and for intangibles, questions of cost determination for various kinds of assets in these categories (especially in case of own construction) and questions of amortization policies and methods.

Under the liabilities and capital heading several problems demand attention. Among

³ An Introduction to Corporate Accounting Standards.

them are sell-and-lease back situations and long-term leases generally, pension plan liabilities, contributed capital, treasury stock, reserves, retained income, quasi-reorganizations, and of course many others.

Financial Statements

Both content and structure of financial statements are next studied, necessarily somewhat briefly. This includes application of the doctrine of full disclosure, developments in terminology, the conventionally classified income statement versus the single-step form, separate statement of retained income versus combination with the income statement, the English double-account form of balance sheet, etc.

Special Reports

If time and the interests of the participating students permit, several topics which have not been incorporated in the subject outline just reviewed can be treated in the form of oral reports. These might include problems connected with consolidated statements, problems of cost-accounting theory, conflicts between accounting theory and income tax requirements, the fund theory of accounting,⁴ a review of Kenneth MacNeal's *Truth in Accounting*, and many others.

READING MATERIALS

Only brief mention need be made concerning the reading materials for a course in accounting theory. Obviously the great bulk of the reading will have to come from library sources, mainly THE ACCOUNTING REVIEW and *The Journal of Accountancy*. Several of the more important books and monographs have been referred to above; others which should be "on reserve" in-

clude Paton, *Accounting Theory and Advanced Accounting*; Norris, *Accounting Theory*; May, *Business Income and Price Levels*; S. E. C., *Accounting Series Releases and Regulation S-X*. Many of the students voluntarily purchase the *Accounting Research Bulletins* and one or more of the monographs; I usually suggest the purchase of one of the books of more general theoretical interest (e.g. Gilman, *Accounting Concepts of Profit*) but it is in no sense used as a textbook for the course.

PEDAGOGY

My preference as to class meetings is for a single weekly two or three-hour period.

The discussion method should be employed in a course of this nature. The instructor must act as a moderator or chairman who directs the discussion but does not dominate it. He will be forced, of course, to discourage the loquacious student who has an answer for every question, and he will try to get the ever-silent introvert to participate, if only on occasion. Perhaps he should go into each new topic with a check-list of points which must at least be touched upon. When a particular point of view or one side of a controversial issue is neglected by the group discussion, the instructor may restore some balance by championing the weaker side.

A very large amount of reading is required if the theory course is conducted along the lines already indicated. Consequently I do not recommend the assignment of any extensive written work. Where the class is small enough, one or two oral reports from each member may be required, as has been suggested above.

Whether any examinations should be given will be determined by each teacher. Thus far my own classes have been too large to permit awarding of semester grades without examination; accordingly, I have given a two-hour final examination

⁴ William Vatter, "The Fund Theory of Accounting," *Journal of Business*, July 1947.

and have arrived at semester grades on the basis of performance on this exercise and in the oral reports.

SUMMARY

To summarize: A course of the seminar type in accounting theory is needed for graduate students in accounting because (1) sound theory is the basis for good practice, and (2) there is a lack of emphasis on theory in most of our curricula. Students in related fields need a means of achieving an understanding of the basic philosophy of accounting without taking numerous courses stressing techniques.

The course should be outlined from the developmental or *history of accounting theory* point of view. It should cover the following major topics: (1) early history: (2) economics and accounting; (3) funda-

mental accounting concepts; (4) statements of principles; (5) accounting and the price level; (6) accounting for individual balance sheet items and their relationship to income determination; (7) financial statement content and structure. Certain topics not otherwise covered could be presented in the form of oral reports if time permits.

Materials for reading assignments will be drawn mainly from the volumes of *THE ACCOUNTING REVIEW* and *The Journal of Accountancy*, plus certain other periodicals, monographs, books, and pamphlets.

The course should be conducted as a seminar, employing the discussion method and without extensive written reports. Examinations may need to be given only where the size of the seminar makes student evaluation by other means difficult.

SUBSCRIPTIONS
to the
ACCOUNTING REVIEW
\$5 PER YEAR

\$5.50 Outside of the Continental United States

The *ACCOUNTING REVIEW* is a quarterly publication, with issues in January, April, July, and October. Your first issue should reach you in about three weeks from the date of your order. Individuals may apply for full membership, which includes a subscription, if they prefer.

WRITE FOR A SUPPLY OF BLANKS

AMERICAN ACCOUNTING ASSOCIATION
College of Commerce and Business Administration
University of Illinois
URBANA, ILLINOIS

THE RELATIONSHIP BETWEEN ACCOUNTING AND MANAGEMENT*

JOSEPH A. MAURIELLO

Assistant Professor, New York University

SINCE THE TITLE of this paper is rather broad, it is desirable to clarify at the outset the scope and emphasis of the topic under presentation. The general purpose of this paper is to show how managerial concepts and views are reflected in the accounting principles, quasi-principles, and conventions which are implicit in the term "current accounting standards."

Accounting serves, or must consider, the needs of the following groups: (1) management, as the agency responsible for the financial affairs of the enterprise; (2) present and prospective investors and owners; (3) present and prospective creditors; (4) employees, as individuals or as organized groups; and (5) the federal and state governments, primarily with respect to taxation and price or rate regulation.

The responsibility of accounting to management is a primary one, and in fact is considered by most accounting authorities to be paramount.¹ Since the decisions and actions of management are directed toward specific objectives and are conditioned by certain views, it follows that these objectives and views must be considered in the accounting in order that it may render maximum service.

The objectives of management are, first,

to conserve the capital of the enterprise and second, to add to such capital by earning income. These two objectives govern the data with which accounting deals. Accounting is fundamentally concerned with the distinctions between capital and income, as these elements are expressed in the balance sheet and the income statement as accounting end-products. The matching of expense with revenue is a corollary of the accounting for capital and income elements, inasmuch as expense is initially capital which subsequently—often immediately—is expended to produce benefit. The distinction between capital and income is preserved even in accounting for that which is basically capital. This is seen in the presentation on the balance sheet of two components of capital: (1) the original investment of stockholders, and (2) the accumulated income retained by the corporation.

Accounting has recognized the significance of earnings as the second primary managerial objective in the following developments and trends:

- (a) The emphasis on the income statement, and the according to this statement an importance equal to or greater than that imputed to the balance sheet.
- (b) The concept of a sharpened income statement, so as to focus attention on earnings from primary, recurring operations, as distinguished from extraordinary gains and losses and adjustments of prior-period profits.²

* This paper was read at the annual meeting of the American Accounting Association, Boston, September 8, 1950.

¹ W. A. Paton has said, "The primary function of accounting is to furnish significant, useful information to managers and owners of business enterprises regarding assets, liabilities, revenues, cost of production, income, and so on." From "Restoration of Fixed Asset Values" (second affirmative), ACCOUNTING REVIEW, April, 1947. Also see Willard J. Graham's statement, "The Effect of Changing Price Levels Upon the Determination, Reporting, and Interpretation of Income," the ACCOUNTING REVIEW, January, 1949, p. 18.

² Accounting Research Bulletin No. 32. An alternative concept, included in the American Accounting Association's 1948 *Statement of Concepts and Standards*, is a two-section income statement, showing primary income separately from extraordinary elements.

- (c) The use of functional account classifications for the purpose of enabling management to determine profits and losses by areas, phases, or lines of activity.
- (d) The continuing re-examination of the processes of determining net income, as evidenced by proposals that cost be amortized on the basis of declining economic utility rather than mere physical use;³ that depreciation be computed on replacement cost; and that the cost of materials consumed and goods sold be determined on the basis of last-in, first-out or other allied technique.
- (e) The use of budgetary statements and statements showing variations between budgeted results and actual results for the purpose of measuring current managerial performances and guiding management in the future.

MANAGERIAL MENTAL PROCESSES AND ACCOUNTING

In striving to attain the dual objectives of preserving capital and maximizing earnings, management makes use of certain assumptions and modes of thinking which profoundly affect the accounting, as follows:

1. Management presumes indefinite operation. This presumption is reflected in the accounting convention of the going concern. Continuity of operations implies a managerial thinking which is prospective and which stresses the need for replacing merchandise and fixed assets. To the extent that replacement is from assets

produced by earnings, accounting must determine the net income properly so as to prevent unwarranted dividend distributions, unjustifiable wage policies, and excessive tax payments to the federal and state governments. The Lifo method of inventory valuation and the basing of depreciation on replacement cost have been advocated as means or devices of retaining funds for the purpose of asset replacement.

2. Managerial perspective is governed by the intended disposition or use of assets owned by the enterprise. This being so, managerial intent is primary in valuing and classifying items on the financial statements. Examples of how intent influences accounting valuations can be readily cited. Thus, items intended for conversion into cash are valued, with some qualification,⁴ at their cash realizable amount. Fixed tangible and intangible assets of limited life intended for use in the business are valued at the cost amount allocable to their remaining service life. In valuing these assets, market values are ignored as being inconsistent with the expectation of continued use. Similarly, permanent investments are valued at amounts which are unaffected by temporary fluctuations in market values in view of the intended continued holding of the securities. As an example of how managerial intent affects balance sheet classification, the cash surrender value of life insurance is classified as a permanent investment if the policy is not to be surrendered within one year from the

³ The Committee on Accounting Procedure of the American Institute of Accountants, in *Accounting Research Bulletin* No. 33, upheld a computation of depreciation on original cost, but at the same time stated that "plants expected to have less than normal useful life can properly be depreciated on a systematic basis related to economic usefulness."

⁴ Current assets, with the exception of inventories under certain circumstances and in certain industries, are valued at the lower of (a) cost or face amount or (b) cash realizable amount. Cost or face value is the maximum valuation amount, in accordance with the conservative rule that profits should not be anticipated.

balance sheet date, and a current asset if it is to be surrendered within that period. As a second example, fixed assets discontinued from normal use and intended for sale are removed from the category of fixed assets and classified as current assets.

3. Management interprets data from an economic standpoint. This view stresses an analysis of financial data from the standpoint of their impact on operating results and financial position, due regard being given to the peculiar operations and problems of the enterprise. Accounting adheres to this economic view by valuing items from the standpoint of whether they have cash value or future utility value, rather than whether they are physical and tangible in character. Adherence is also seen in the adoption of the concept of the operating cycle in classifying assets as between current and non-current categories.⁸

Accounting has gone so far as to make use of the economic view in preference to legal fact where (a) the two differ because of form rather than substance, and (b) the economic interpretation anticipates the subsequent legal reality. As an example of reliance on substance, hire-purchase agreements are treated as effecting current transfers of title where the intent is eventually to acquire ownership of the asset.⁹ A second example is the practice of carrying the stock investment in a subsidiary at book value, instead of at cost. The accounting recognition of an item in advance of its legal origin is exemplified by contingent obligations for product warranties. These are treated as currently-existing liabilities where

experience indicates a substantial probability of materialization in the future. Allied items reflected in the current accounting are future liabilities which are definite of occurrence and which stem from transactions of the current period.

4. Management correlates financial sacrifice or effort with the benefits therefrom. Management continuously makes expenditures for future benefit. Expenditures for fixed assets, prepaid expenses, deferred charges to expense, and merchandise are illustrative. Less frequently, present benefit is derived for which expenditure is made in the future. An example is the expenditure, at the termination of a lease, to restore leasehold premises to their original condition, due allowance being made for depreciation during the prior period of use and benefit.

Irrespective of whether the expenditure precedes or follows the benefit, management, in its thinking, tends to construe the expense as incurred in the fiscal period in which the benefit is realized. This mental process is the foundation for the current expense-revenue approach employed in modern accounting texts. The mode of thinking is evidenced by numerous accounting procedures, including that which allocates the costs of fixed tangible assets, prepaid expenses, and intangible assets of limited life over related service periods.

5. Management, like the ordinary individual, holds present values in higher regard than values effective in the future. This view applies to obligations, receivable or payable, which because of the interest factor have a current value differing from a future cash settlement amount. The view is the basis for valuing the following items at present values instead of maturity

⁸ *Accounting Research Bulletin* No. 30.

⁹ *Accounting Research Bulletin* No. 38.

values: Bonds purchased for long-term investment, which are valued at cost less amortized premium or plus accumulated discount; leaseholds, which are valued at cost less rent expired, with further adjustment for interest earned on the rent prepayment; bonds issued, which are valued at the original sales proceeds less premium amortized or plus discount accumulated; and discounted notes payable of the concern, which are valued at face amount less discount unexpired.

LIMITING EFFECT OF LEGAL VIEW

Accounting, while it attempts to adhere to the managerial view, cannot disregard the legal factor. Financial statements reflect property rights and contractual relationships which are necessarily controlled by prevailing statutes and trade practices. Accordingly, the legal and managerial views often differ. Ordinarily, they can be reconciled by using one account to show the legal claim and one or more adjunct accounts to adjust the legal amount to the economic value serving as the managerial measure. Thus, adjunct accounts are used to reflect estimated uncollectible notes and accounts receivables, estimated discounts on accounts receivables, estimated discounts on accounts payable, unamortized premium or discount on bonds payable, and stockholders' contributions in excess of legal capital. These adjunct accounts are useful in that they make possible a collateral presentation of legal and economic values, without rejection of one or the other. The two views may also be reconciled, in an applicable case, by footnoting the financial statements. The footnote is used, for example, to reflect the particulars of such conditional contracts as are given effect to in the body of the balance sheet.

The managerial view often conflicts with the legal view to such an extent that

reconciliation is impossible. In this event, the legal view is paramount. As George O. May has stated in *Financial Accounting*, "The authority of accounting can hardly be claimed to extend into the area in which the rights of persons are established by legal contracts under general laws."⁷ As an illustration of the supremacy of the legal view, accepted accounting standards require that a corporate-owned life insurance policy be valued at the amount collectible from the insurance company on surrender of the policy. This legal amount differs from the economic amount measured by the sum of the net premiums paid by the corporation.

The legal view requires, in determining net income, that expenses be recorded only if incurred in transactions with other parties. Accordingly, imaginary, or statistical amounts, no matter how useful from a managerial standpoint, should be excluded from the accounts and made the basis of supplemental analyses. Such amounts may, of course, be included in the accounts, but only if they are so handled as to produce the same net income and asset values which would have obtained had the fictional elements been ignored originally. Under this requirement, opportunity cost items, such as imputed salaries of partners or of the sole proprietor and imputed interest on owner's investment must not become a part of ending inventory values.

ACCOUNTING PRINCIPLES AND OBJECTIVES BASED ON RESPONSIBILITY OF MANAGEMENT AND ACCOUNTING TO OTHER GROUPS

This paper has thus far stressed accounting as a tool or servant of management. Accounting, however, has an independent dignity and authority which it asserts by imposing certain requirements on management in recognition of the responsibility of both management and accounting

⁷ *Financial Accounting*, p. 211.

to the various other groups affected by financial statements.

These other groups, as indicated at the outset of this paper, include present and prospective investors and owners, present and prospective creditors, employees, and the federal and state governments. In deference to these groups, the following principles and objectives have been developed:

1. The principle of disclosure, for the purpose of conveying to the various interested groups sufficient and reliable financial information for their guidance and action. In accordance with this principle, modern financial statements include parenthetical references and supplemental footnotes as to bases of valuation, major accounting policies followed, changes in accounting policies and methods, and contingent and indeterminate items.
2. The principle of consistency, for the purpose of making the analysis of successive income statements and balance sheets meaningful and of permitting proper conclusions. This principle requires a footnote disclosure of changes in accounting policies or of the manner in which they are applied. In this connection, it may be noted that the final paragraph of the standard auditor's opinion requires the independent accountant to state whether the principles applied in the current year are consistent with those of the preceding year.
3. The use of simplified, understandable financial statements. Many members of the several groups mentioned may have had no special training in accounting. This fact imposes on management and accounting the obligation to simplify the financial statements through a more logical arrangement of items and use of the layman's language. Constructive

steps in this direction are the suggestions of the American Institute of Accountants to restrict the use of the term *reserve*,⁸ and to discontinue the use of the term *surplus*.⁹ Along the same lines is the recommendation of the Executive Committee of the American Accounting Association to eliminate the "reserves" section from the balance sheet.¹⁰

4. The measurement of managerial efficiency, for the purpose of holding management accountable for its stewardship of the concern's financial affairs. In accordance with this objective, the following accounting rules—among others—have been developed:

Donated assets should be set up at fair market values and management held responsible for such values.

Neglected cash discounts on purchases constitute a form of loss.

Expenditures caused by obvious mistakes in judgment represent losses, rather than asset elements.

Losses from sales or write-downs of assets should have their initial incidence against the Earned Surplus account as the record of cumulative earning power.

Significant and permanent impairments in asset values must be currently recognized.

Losses should not be concealed through the process of charging surplus reserves.

Reserves should not be used as a means of arbitrarily equalizing expense and loss charges and thereby smoothing reported profits.¹¹

Assets prematurely amortized or depreciated should be restored so that future operations may be charged for their share of the total cost of the asset.¹²

⁸ Accounting Research Bulletin No. 34.

⁹ Accounting Research Bulletin No. 38.

¹⁰ Accounting Concepts and Standards Underlying Corporate Financial Statements (1948 revision).

¹¹ Accounting Research Bulletins No. 28 and No. 31.

¹² For a round table debate on this point, see "Restoration of Fixed Asset Values to the Balance Sheet," ACCOUNTING REVIEW, April 1947, summarizing the views expressed in six papers presented at the American Accounting Association's annual convention, September, 1946.

5. The adherence, as much as possible, to values which are objective in character, so that the various interested groups may agree on the amounts appearing on the financial statements. This rule upholds the concept of historical cost. The standard of objectivity is a deterrent to any policy of appreciating intangible assets, or of injecting replacement costs in the accounts. The rule also discourages the arbitrary understatement of assets or overstatement of liabilities based solely on conservatism or other specious reason.

FUTURE UTILITY OF ACCOUNTING TO MANAGEMENT

Accounting must produce facts and estimates which are significant and useful to management. As asserted by Paton, "Where recognition of economic realities runs counter to some convention or tradition, . . . tradition should give way."¹³

Accounting postulates must be reconsidered in the light of changing economic and social conditions. Accounting must continue to grapple with the problem of determining economic income as contrasted with money income so as to provide data which are meaningful to management. Whether the concept of economic income should be reflected in the financial statements made available to groups other than management is debatable, in view of the emphasis, under the present business structure, on number of dollars instead of the purchasing power of such dollars.

There is no barrier, however, to the preparation of supplemental statements solely for managerial interpretation and use. These statements may also give effect to doctrines and concepts which the legal view prohibits in the preparation of statements prepared for groups other than management.

NECESSITY FOR ACCOUNTING TRUTH

The responsibility of management to other groups—meaning to the community at large—has increased over the years. In the current era of social and economic consciousness, management can no longer deny the claims of others to the financial data of the concern. On the other hand, management, in admitting these claims, cannot indulge in arbitrary accounting practices designed to secure certain desired end-results. Management, in short, cannot control and regulate the accounting as the means to certain ends. Accounting is a social force with attendant responsibilities. The statements produced by the accounting process serve as the basis for policies bearing on dividends, wages, taxes, expansion or contraction of operations, etc. These policies obviously have a profound effect on the economy. In order that these policies be sound and for the common good, accounting must reflect the truth to the maximum extent possible.

Accounting procedures, practices, and standards must stand the two tests of producing proper valuations and clearly reflecting net income in conformance with criteria acceptable and meaningful to the prevailing business and social structure. Only if these tests are met, can accounting serve all groups equitably and in accordance with the facts.

¹³ "Accounting Procedures and Private Enterprise," W. A. Paton, *Journal of Accountancy*, April, 1948, p. 279.

ACCOUNTING FOR JOINT COSTS

HAROLD G. AVERY

Associate Professor, Union College

ONE OF THE complex functions of accounting is the allocation of joint costs in commerce and industry. Accountants are called upon to analyze certain factual data and to report to management some kind of workable solution for an almost unsolvable problem. Here are some recent questions which involve the allocation of joint costs either directly or indirectly. How much does it cost to manufacture and sell 25 milligrams of thonzylamine? How much does it cost the corner chain grocery store to sell a bottle of catsup? A can of tomatoes? A pound of T-bone steak? Are hotels making any profit on their meal service? What does it cost to educate a medical student in the State of New York? To transport one passenger one mile on a commuter train? And so forth!

These questions can be answered, but whether or not they are answered correctly is a matter of individual opinion. The production and distribution cycle from the sources of raw material or the provision of the service to its ultimate consumption or use consists of many cumulative variable and fixed costs. The fundamental accounting presupposition upon which most decisions are based in the allocation of joint costs to the individual products is the concept of reasonableness. Sometimes these decisions seem to have no other foundation than that of being arbitrary. Where the accounting method seems unreasonable for allocating costs or the results appear untenable in the light of common business knowledge and experience, management can ignore the problem of joint costs completely and install a system of accounts which will report the total cost of all products manu-

factured or services rendered without making any attempt whatsoever to arrive at the cost of any single product or service.

Accounting for joint costs is not a special accounting system. If any of the three generally recognized types of a cost system is installed (job order, process, or standard), accounting for joint costs becomes a supplementary part of the cost system in use. The problem of allocating selling and general expenses in a trading concern is a difficult one. Mark-ups based on gross margins with particular emphasis being placed on competitive prices, or what the consumer will pay, are employed in price determination in many cases. It is in the manufacturing process particularly where any serious attention has been paid to the allocation of joint costs. Nevertheless, merchants engaged in the retailing, wholesaling and service organizations are beginning to ponder the problem, especially when the problem arises whether or not to add or eliminate certain lines or services.

ANALYSIS OF JOINT COSTS

Although one way of dispensing with the problem of joint costs in the accounting records is to disregard it, our discussion will deal mainly with those industries that do not overlook the issue, but make serious efforts to solve the problem by analyzing the elements of joint costs. Sometimes in the manufacture of a principal product or products, other secondary or additional products result. A sawmill is established to produce lumber; yet in the process of sawing the lumber, additional products in the form of bark slabs (for heating purposes) and sawdust are effected. These secondary and additional

products resulting from the manufacture of the principal or major product may be called by-products.

By-products are usually classified according to their relative importance on the market or the amount for which they can be sold compared with the principal products. Generally, if the by-product has a relatively small market value or no value at all, except on special occasions, such as sawdust in the above example, the by-product is classified as scrap or waste; but if the product has a relatively stable market value and becomes more valuable in its relationship to the principal product, it is classified as a by-product. If the values of two or more products resulting from a manufacturing process become fairly equal or relatively about the same, the classification becomes one of joint products. Professor John J. W. Neuner in his text, *Cost Accounting*, states that if the value of the product is less than 10 per cent of the total value of all products, it is considered a by-product. Whether or not a categorical classification of a by-product can be made, relative value on the market becomes the determining factor. Even so, it is possible for accountants to disagree on the exact relationship, and in one instance a product will be classified as a by-product, yet the same product in a similar situation will be accounted for as a joint product. Furthermore, over a period of time because of the changing conditions of the market and industrial technology, a product originally may be considered a by-product but later classified as the principal product, with the original principal product being relegated to a minor classification. The illustration of kerosene and gasoline is often cited as an example of this phenomenon.

PROBLEM

The following problem involves the case of a manufacturer of soy bean oil principally. A standard cost system is instituted

whereby soy beans are processed into oil and meal at a joint cost of \$3.80 for every 60 pounds of raw material. A careful study shows that the original 60 pounds of raw material can be broken down as follows:

Product	Percentage	Quantity
Oil	14.5%	8.7 lbs.
Meal	82.5%	49.5 lbs.
Waste	3.0%	1.8 lbs.
Total	100.0%	60.0 lbs.

We will assume that the price of oil is 40¢ per pound, and meal is selling for \$60 per ton, or 3¢ per pound, at a particular date. The waste of 1.8 pounds is a complete loss.

GROSS INCOME METHOD

The easiest and simplest method to handle the above problem is to ignore joint costs and to consider both products as a part of the gross income. From this sum, one will deduct the total manufacturing costs, and find the gross margin which will cover the selling and general administrative expenses and provide a profit. A regular manufacturing accounting system will furnish the accounting data necessary to determine this information. The gross income method, however, will not show management how much profit is made on the sale of oil compared with the profit (or loss) on the sale of meal. Management will know whether a profit is being made or a loss incurred from the total manufacturing process. This fact is all-important to the small manufacturer, and in so far as he is concerned, the only accounting system in which he is interested is one which will give him a profit or loss figure for the entire process in the most efficient and economical manner.

BY-PRODUCT VS. JOINT PRODUCT

Over a long period of time (depending upon the financial ability of the organization) the gross income from both oil and

meal products will have to be greater than \$3.80, for every 60 pounds of raw material processed, since the \$3.80 covers only the manufacturing costs (raw material, direct labor, and manufacturing expenses), and thus makes no provision for selling, general administrative expenses, and an allowance for a reasonable profit. If one assumes a gross margin of 20 per cent sufficient to cover all other expenses and to provide a small profit margin, the gross income from sales of both products will have to be \$4.75 for every 60 pounds of raw material processed.

Price tables can be constructed to calculate the market value relationship between the two products. For example, if there is no market price for meal, then oil will have to sell at 44¢ per pound to cover manufacturing costs (\$3.80), or about 55¢ per pound to cover all costs and allow for a small profit. Conversely, if soy bean oil has no market price (a very improbable assumption), then meal must sell for \$154 per ton to meet manufacturing costs, or about \$192 per ton (preposterous) to cover all costs and profit. Somewhere in between these two extreme value ranges, the following classification can be made:

- Meal is a waste product
- Oil is the principal product, meal the by-product
- Oil and meal are joint products
- Meal is the principal product, oil the by-product
- Oil is a waste product

Sales value ratios can be determined based on the prices given in the problem as follows:

	Sales Price	Ratio	Percent- age
Oil (40¢×8.7¢)	\$3.48	.700+	70%
Meal (3¢×49.5¢)	1.485	.300—	30%
Total	\$4.965	1.000	100%

Since the sales value of the oil is \$3.48 and meal \$1.485, or a total of \$4.965 for

every 60 pounds of soy beans processed, oil represents approximately 70 per cent of the total value, and meal 30 per cent. One would conclude in this instance that the two products should be considered as joint products, because the relative values do not have a very great dispersion. If the classification is treated categorically as suggested by Professor Neuner, oil and meal should be treated as joint products since the value of each product is more than 10 per cent of the total value. Such a policy might be too rigid, depending upon the relative fluctuation of the market prices of the two commodities. The price of meal may vary from \$10 to \$75 per ton from year to year; yet the price of oil may hold steady for a long period of time, with price fluctuations being only a matter of a few cents per pound. Therefore, it might be considered valid to classify meal as a by-product where soy bean oil is manufactured as the principal product.

ACCOUNTING FOR BY-PRODUCTS

The following methods can be considered in accounting for by-products:

First, charge all costs to the principal product and treat the income received from the sale of by-products as other or miscellaneous income. The income received from the sale of by-products again might be credited to the total overhead expenses, and thus reduce the burden rate applied to the manufacturing process.

When this method is followed the assumption is made that the value of the by-product has little significance when compared with total revenue received from the principal or joint products. Some firms classify by-products under this condition as scrap or waste materials, and treat the sale of such items as other or miscellaneous income. No inventory adjustment is necessary at the end of the accounting period, since the value of the by-

product has no particular market value at the present.

Meal might be considered a waste product if its market price reached such a low point that the income received from the meal barely covered its selling costs.

Second, treat the net income received from the sale of by-products (gross sales less selling expenses) as a deduction from the cost of the principal product. In this case, the by-product has sufficient market value to be included in the inventory at the end of the accounting period. Thus, the estimated realizable value (sales price less selling expenses) is charged to the inventory account and credited to the cost of sales of the principal product.

This method might be applied in our problem if the price of meal reached a quotation of \$20 per ton or 1¢ per pound. Assuming oil is selling at 40¢ per pound, the income from the principal product would be \$3.48. If the manufacturing costs were \$3.80 as before, the sale of meal at 1¢ per pound for the 49.5 pounds contained in the 60-pound lot of soy beans, would reduce the manufacturing cost 49.5¢, or to a figure of \$3.305, leaving a meager 17.5¢ for other expenses!

Third, treat the net income received from the sale of the by-products (gross sales less both selling and manufacturing expenses) as a deduction from the cost of the principal product. This method is applicable when the by-product is not marketable at the split-off point in the manufacturing process but needs further processing and the incurrence of additional manufacturing expenses to make the by-product merchantable, such as the preparation of green hides for the market, or drying and pressing mash for feed. The inventory value at the end of the accounting period is determined by estimating the realizable value of the by-products for sale (sale prices less selling and manufacturing expenses). The cost of goods manu-

factured is credited with the estimated inventory valuation.

This method would not be applied in our problem since no further manufacturing costs are incurred in the processing of the meal.

ACCOUNTING FOR JOINT PRODUCT COSTS

Assume that the relationship between the market value of oil and meal remains fairly constant—ranging, say, between ratios of 80-20 and 50-50, over a period of several years, for each 60 pounds of raw material placed in the productive process. Management has instituted the policy of treating these two commodities as joint products and of allocating the joint costs between oil and meal, for the purpose of calculating the amount of profit (or loss) on each of these two items. The problem then becomes one of accounting for the distribution of joint costs. Three methods will be discussed in this paper: (1) the determination of the cost of each joint product by allocating the manufacturing costs on the basis of weight or volume of the raw materials which become a part of the joint product; (2) the determination of the cost of each joint product by allocating the manufacturing costs on the basis of the market or sales value of each of the joint products; and (3) the arbitrary allocation of manufacturing costs.

Inventories at the end of the fiscal period are valued at the unit costs as determined in each method.

COST ALLOCATION BY WEIGHT

The first method discussed in the allocation of manufacturing costs to joint products is based on the weight or volume of the raw materials entering the final product. The following table shows the allocation of joint costs in our problem if manufacturing costs are distributed on the basis of weight.

Unit: 60# Raw Material
Total Manufacturing Costs Distributed: \$3.80

	Wt. (in lbs.)	Percent- age (Approximate)	Allocation	
			Total cost	Cost per lb.
Oil	8.7	15%	\$0.57	\$.065
Meal	49.5	85%	3.23	.065
Waste	1.8			
Total	60.0	100%	\$3.80	

The loss arising from waste is borne by the joint products on the basis of weight remaining after deducting 1.8 pounds from the unit of 60 pounds. Under this method the cost allocated to each pound of the joint product is the same, or approximately 6.5¢ per pound. For example, the total cost of \$3.80 can be divided by 58.2 pounds to arrive at the pound cost of each product, or approximately 6.5 cents. Either method of calculation will produce the same result.

The weight of raw materials used in the manufacture of oil and meal should not be used as a basis for allocating the joint costs in this case, because of the wide discrepancy in the market value of the weight of the joint products as finished goods compared with the market value of the weight of the raw materials used in the production of those goods. Unreasonable and incongruous cost figures will result. Oil selling at 40¢ and meal at 3¢ per pound are each allocated manufacturing costs on the basis of 6.5¢ per pound. Stated on the basis of 60 pounds of raw material, oil which has a selling price of \$3.48 will bear only 57¢ of the total manufacturing cost; whereas, meal having a market price of \$1.485 will be allocated \$3.23 for manufacturing costs. The profit and loss figures arising from the manufacture of these two

commodities will have little meaning, except one might conclude that the plant is in the business of subsidizing the losses resulting from the manufacture of meal with the profits arising from the manufacture of oil! Obviously, this is not in accord with the facts. The aim of the manufacturing process is primarily to produce soy bean oil. If losses are incurred in the manufacture of the meal, the accounts should be so constructed as to allocate these costs to the manufacture of oil in the first place. It is only when the market values of the joint products on a volume or weight basis do not have a relatively wide variation that this method can be generally applied.

COST ALLOCATION BY SALES VALUE

This method appears to be the most common in the allocation of costs between joint products, since the gross profit ratio for each product is the same. Market or selling prices, however, determine the allocation of costs, and sometimes the prices on the market place have such wide variations within a relatively short period of time, i.e., prices fluctuate from day to day or week to week, that incomparable cost figures will result. On the other hand, if the market prices remain fairly constant from month to month or year to year, this method has considerable merit. Sometimes in order to overcome the disadvantage of price fluctuations, organizations will establish market values based on fixed standards, weighted averages, or other types of averages.

The allocation of joint costs in our problem can be illustrated under this method as follows:

Unit: 60# Raw Material Total Manufacturing Costs Distributed: \$3.80					
	Market Value (Selling Price)	Percentage (Approx.)	Cost Allocation	Gross Margin	Ratio (Approx.)
Oil (40¢×8.7#)	\$3.48	70%	\$2.66	\$0.82	.23
Meal (3¢×49.5#)	1.485	30%	1.14	.345	.23
Total	\$4.965	100%	\$3.80	\$1.165	.23

Oil (Meal)

This method shows that the gross profit ratio in the manufacture of oil and meal is the same, or approximately 23 per cent. The percentage used for cost allocation will vary with the market price of the joint products, yet the gross profit or loss ratio for each commodity will always be the same. For example, if the price of oil in the above illustration suddenly dropped to 20¢ per pound, the cost allocated to the oil would be approximately 54 per cent of the \$3.80, or \$2.05. Absolute losses would arise in the manufacture of both oil and meal, and the gross loss margin for each item would be about 17.8 per cent—the same percentage gross loss for the total operations.

A number of accountants object to this method because it appears to be unrealistic. The products have different characteristics, they have different prices on the market place, and the demand for the two products is based on dissimilar desires and needs. Therefore, there seems to be no reason why an accounting method should be adopted which will allocate joint costs in such a manner that each product will show the same gross profit or loss margin.

ARBITRARY ALLOCATION OF JOINT COSTS

Management finally resorts to arbitrary methods of cost distribution when no other basis seems logical for allocating joint costs. An attempt is sought to apportion costs among the joint products or by-products for the purpose of determining a reasonably calculated gain or loss on each item. Assume that our total manufacturing costs are allocated on a 50-50 basis. The results can be illustrated as follows:

A gross margin of \$1.58 is made in the manufacture of oil, offset by a loss of 41.5¢ on meal. The over-all results are the same as in the other methods; but here we have a situation whereby meal is being sold below cost on an arbitrary basis.

The principle that is usually followed in determining whether it pays to produce an additional commodity or to render a supplementary service will not apply in the above situation. To measure whether an additional item pays or not is to calculate the savings that will result if the good or service is eliminated. If the costs eliminated are greater than the income derived from the additional product or service, then one can say that the additional item did not pay for itself, but had to be produced at a loss. On the other hand, if the income from the additional good or service is greater than the cost that would be eliminated if the good were not created, then one can say that the additional by-product or joint product is a profitable undertaking. Meal cannot be eliminated from the productive process if oil is to be manufactured; therefore, any losses incurred in the manufacture of meal should be borne by the manufacture of oil. Consequently, it seems unsound in the manufacture of joint products to allocate costs in such an arbitrary manner as to show a loss on one product offset by a gain on another.

SUMMARY

One must finally conclude that the problem of allocating joint costs *per se* is unsolvable from a theoretical point of view. It is impossible to determine what

Unit: 60# Raw Material
Total Manufacturing Costs Distributed: \$3.80

	Market Value (Selling Price)	Percentage	Cost Allocation	Gross Margin	Ratio (Approx.)
Oil (40#×8.7#)	\$3.48	50%	\$1.90	\$1.58	.454
Meal (3#×49.5#)	1.485	50%	1.90	(Loss) .415	-.279
Total	\$4.965	100%	\$3.80	\$1.165	.234

costs should be matched against the income resulting from the manufacture of by-products and joint products. Procedures for allocating joint costs are based on certain standards of reasonableness; and the results are justified in the light of present-day market values, productive technology, and business experience. The techniques for the allocation of joint costs

must be improved; otherwise, the conclusions obtained from various methods of joint cost distribution have no foundation of proof. Accountants will then have to resort to the basic criterion of all successful business enterprise, namely, that total revenue of the organization—in the long run—must cover the total costs of production.

Index to
THE ACCOUNTING REVIEW
1926 through 1950
and
Papers and Proceedings of the
American Association of University Instructors
in Accounting
1917 through 1925
Three-way classification
1. Subject Matter
2. Book Reviews
3. Authors

To be distributed without charge in April, 1951 to persons who were members on December 31, 1950. We are sorry that the distribution has been delayed.

The price to others: \$2.50 per copy
(Add 50¢ for orders outside of the Continental United States)

Please send your orders to:
American Accounting Association
College of Commerce and Business Administration
University of Illinois, Urbana, Illinois

THE INTERMEDIATE COURSE IN ACCOUNTING

R. K. MAUTZ

Associate Professor, University of Illinois

IN MOST COLLEGES AND UNIVERSITIES, the intermediate course in accounting is an extremely important one. Since in many schools it is required of all business students, it is apparently considered to be of real value to an education in any field of business. Even in schools which do not prescribe intermediate accounting as a requirement for a degree in business, many students who have no intention of specializing in accountancy are attracted and elect this subject because they feel it contains a point of view that will assist them in their later work. For those students who do major in accountancy, the intermediate course must provide a sound foundation for advanced work in systems, auditing, advanced problems, and theory.

A subject of such importance should undoubtedly have occasional reconsideration. It may be well, therefore, to review the usual approach to this course in order to consider whether any changes or modifications may be in order.

Two general problems must be dealt with in the development of any course. These have to do with (1) content, and (2) level of attainment expected of students enrolled. One must decide what is to be included and what excluded, what material should be emphasized and what played down. Next, a decision must be reached as to the degree of difficulty of the work to be included and the level of attainment to be expected of the student. In the intermediate course in accountancy these problems become especially serious because of the variety of conditions under which the course is offered.

As indicated earlier, intermediate ac-

counting may be required of all business students. This means that in a given class three different groups of students may be included: (1) non-accounting majors, (2) accounting majors who will find work in industrial accounting, and (3) accounting majors who will take positions in public accounting. To design a course which adequately serves these three different groups is not an easy task. In schools which do not require intermediate accounting of all business students the same three types will be found; the only difference will be in the distribution of students among the three groups. The proportion of non-accounting students will very likely be somewhat smaller.

Another variable is found in the position of the course in the curriculum. If accountancy is offered in the freshman year, students may take intermediate accounting in either the first or the second semester of their second year in college. If, however, no accountancy is offered until the sophomore or junior year, students will not enroll in intermediate accounting until they reach more advanced standing. Such students will therefore be more mature and capable either of handling more difficult material or of handling the same material in less time or with less preparation. A special variation of this condition is found in many city colleges which have a heavy night school enrollment. Night school students tend (1) to be older than ordinary undergraduate university students; (2) frequently have some experience or acquaintance with accounting which has encouraged them to take night school courses; and (3) often

take something less than a complete, well-rounded course of business studies. These students therefore may pose a special problem as to content, as well as to level of achievement, because they desire as complete a business education as possible from the limited number of courses they are able to take. They may miss completely such important material as corporation finance, business organization, economics, and business law unless their accounting courses are expanded to cover some of this material.

With these problems to solve, a person who attempts to develop a satisfactory intermediate course has but one sure guide. Whatever decisions he makes must give first consideration to the needs and abilities of the students whom the course is designed to serve. And if the needs of his various students are incompatible, as they rarely are, it seems fair to bias the important decisions in favor of the majority of students who enroll in the course.

What then are the needs of students who take intermediate accounting? An answer to this question is a prerequisite to solving the problem of course content and can be obtained most effectively by considering the three groups of students mentioned previously.

It is the normal expectation of the non-accounting major that he will have little or no occasion to deal with and solve difficult or complex accounting problems. He will very likely never be called upon to prepare accounting reports, to make accounting analyses and computations, or to take a direct part in the functioning of the accounting department of a large business. He has chosen some other field—management, marketing, finance, or the like—and does not plan to be an accountant. If he is in the general area of business, however, he will certainly use accounting data in one form or another. There is considerable truth in the well-

worn phrase that "accounting is the language of business," and it is difficult to conceive of any important position in business which does not in some way use or rely upon accounting data.

This situation calls for a management approach or at least a managerial slant to accounting. Because a non-accounting major expects to be a consumer rather than a producer of accounting data, he is more concerned with the usefulness of the data than with how they are obtained. He should know what information can be expected of an accounting department and how that information can be used most effectively. He should also know what other services accounting can render in the form of controls over operating departments, protection of company resources, facilitation of operating activities, and the like. If he uses accounting data in any discretionary capacity he must know enough about how such data are accumulated and presented to understand accounting reports and their limitations. An awareness of the weaknesses in accounting data then becomes an important element in his education. If he has no understanding of the limitations of accounting data, he lacks important information since he must not only know how to use financial data but also when to rely upon them and when to question them.

The important features of course content from the standpoint of non-accounting majors may be summarized as:

1. The usefulness of accounting.

This comprehends an understanding of the functions and purpose of accounting, together with adequate emphasis upon both its information and internal control functions.

2. The nature of accounting reports and records.

Attention must of course be given to the usual financial statements and their construction and interpretation, for a knowledge of these is essential to success in most fields of business activity. But the

simple day-by-day use of such accounting data as inventory quantities, accounts receivable balances, and open vouchers payable should also be recognized. The regular use of accounting data by other departments of the enterprise should never be underemphasized.

3. The limitations of accounting data.

This point of view requires a sound background in basic accounting theory, an understanding of the extent to which estimates enter into accounting computations, and an awareness of the variety of practices followed in important areas such as inventory valuation and net worth accounting.

To the extent that any non-accounting major has added such important material as this to his general business education, he is better qualified for a real career in business.

The student who majors in accounting and then finds his career in some industrial accounting position likewise should have a strong management slant in the accountancy he studies. He must have everything that the non-accounting major has and of course a good deal more. What he should get in an intermediate course, however, differs very little from the material most desirable for general business students. Their problems will be his problems, for it is the industrial or private accountant who is responsible for day-by-day operation of the accounting department. If he is to provide others with the information and controls they desire he must have much of the same background in order to appreciate their point of view and to visualize their needs.

In the past, there apparently has been a well-established theory that accounting courses should be developed to train accountants. Anyone else who needed an understanding of accounting could take as many of the accountants' courses as he thought desirable. This resulted in producing professionally trained accounting students who, upon completion of their

accounting studies, were rather well indoctrinated with accounting as a field of study sufficient unto itself. They had very little interest in the point of view of other business fields. Other students who took only some accounting courses obtained a foundation for advanced professional accounting courses which they never took; they did not get a very adequate picture of what accounting could mean to them in their own special line of work.

If accounting is to be a tool of management and an indispensable adjunct of business, as it should be, it seems more logical to give all business students a basic understanding of how accounting functions to serve business. Then those who take no advanced accounting courses have acquired knowledge and ideas which will directly benefit them in whatever field they select. Those who do choose accounting for a career can proceed to a study of special accounting problems with an appreciation of the role which accounting plays in the economy and an understanding of how other business students expect to use it. The intermediate course, if slanted in this direction, becomes both a suitable terminal course for non-accounting majors and valuable background material for those who proceed to other courses in accounting. As a result, we may secure a higher degree of integration in business education.

This suggests that the prospective public accountant also should have the same type of background course. Public accountants do a great deal more than make audits and do tax work. They stand as advisers to management on a host of accounting and financial problems. To do this well, they need first an appreciation of the businessman's use and understanding of accountancy and, second, a realization of what accounting can do for business and how that function should be accomplished. Of course, too much should not be included

in a single intermediate course, but it does seem clear that something of a management approach in intermediate accounting courses can be of very real benefit to accounting majors, as well as general business students.

If present textbooks are any indication of course content—and they probably are—the current emphasis in intermediate accounting courses is not along the line which has been described. Rather it appears that the usual goal of intermediate accounting is to prepare students for the C.P.A. examination. Such highly professional matters as actuarial science, work paper techniques, and C.P.A. type problems are heavily emphasized, to the almost complete exclusion of internal control and the various uses of accounting data. This C.P.A. training emphasis is further indicated by (1) the inclusion of a great deal of material on business law, corporation finance, and business organization; and (2) organization of the material in balance-sheet sequence much as is done in a professional audit engagement.

Emphasis on C.P.A. training is of course an important feature of the work offered to accountancy majors, but before accepting that emphasis as the central theme of an intermediate accounting course an instructor should inquire into such important questions as:

1. How many or what proportion of my intermediate students will actually sit for the C.P.A. examination?
2. Does an emphasis upon C.P.A. examination type problems give a student a satisfactory background for a career beyond the C.P.A. examination? (Even public accountants must do much more than solve accounting problems; an understanding of internal control and the use of accounting data are far more essential to a career in accounting than the ability to solve C.P.A. problems. We should not confuse the importance of a short-range objective like the C.P.A. examination with the long-range objective of a career in accounting.)

3. Do most of my students have an opportunity to take courses in such fields as business law, corporation finance, and business organizations, or must some of this material be crowded into courses designated as "accounting"?

An accounting course should not only include the proper material and emphasis, it should be pedagogically sound. Teachability and learnability should always be important considerations. It is questionable whether an integrated intermediate course can be organized around C.P.A. examination type problems presented in balance-sheet sequence.

First, the use of C.P.A. examination problems is not particularly desirable, because such problems are originally designed to be testing material rather than teaching material. Every teacher knows that his daily problem assignments should be directed at illustrating applications of important material covered in the text. This frequently requires emphasis upon single or closely related points. Likewise we should all be aware that C.P.A. examination problems are directed at testing candidates who seek to qualify for admission into the profession of public accounting. Many problems designed for testing are something less than satisfactory for teaching purposes, because they seek to test a candidate (supposedly one with practical experience and considerable training) on a variety of points at once. Such problems may deliberately obscure important points in order to test the examinee's ability to penetrate a difficult situation. Good teaching in elementary and intermediate courses demands that we use problems designed to bring out text material, not those designed to test a person's ability to meet new or unusual situations. C.P.A. examination problems can be useful teaching material, especially in advanced work after a student's background has been broadened by both

accounting and other courses. Seldom, however, do they have the management approach, which is the most useful approach from the point of view of most students in intermediate accounting.

A second major criticism relates to organization of the intermediate course in a balance-sheet sequence. When this is done, the course tends to become a series of quite unrelated problems. First we study cash, then receivables, then inventories, investments, and so on. There is little relationship or connection between problems in accounting for cash and problems in accounting for receivables when attacked in this piecemeal manner. The student is not carried smoothly along in a continually developing sequence; neither does he have any thread of continuity linking all the parts together. Instead he has the rather frustrating feeling that he is being hurried from one unrelated problem to another. In an intermediate course, some thread of theory or grouping of similar transactions to provide a logically developing sequence can be of great help in relieving students of the bewilderment they otherwise experience in facing at that stage the rather formidable series of different subjects which must be included.

Organization of material in balance-sheet sequence has a further deficiency in that it leads to emphasis away from the income statement. We hear and read much these days about the increasing importance of the income statement. Yet there is little in the organization of our intermediate accountancy courses to give students this significant idea. Balance-sheet sequence results almost inevitably in balance-sheet emphasis at the expense of the income statement.

Finally, the inclusion of a great mass of facts as to points of law, matters of corporation finance and operation, and the like tends to detract the student's

attention from the important accounting issues involved. If a student's entire business education is to consist of his accounting courses, this may be necessary. On the other hand, if he has available or is required to take other business school courses in these subjects it seems very undesirable that this material should be duplicated. A certain degree of overlapping is necessary and even desirable, but the inclusion of any great amount of foreign material in an accounting course should be avoided if at all possible.

The point should also be made in this connection that no course in a college or university should be aimed at merely presenting a mass of factual detail or procedure for memorization by the student. Emphasis should be on reasoning and the development of a student's ability to think in terms of accounting ideas. This again suggests the importance of basic theory and the usefulness of a knowledge of the functions and limitations of accounting. To bury this desirable emphasis under a mass of factual legal and accounting detail would do little to advance a student's reasoning ability.

This rather brief discussion of the needs of intermediate accounting students and the content of intermediate accounting courses suggests first of all that there has been a strong tendency to direct intermediate texts and courses at the needs of a very small proportion of students, and, second, that even this very small proportion has other needs which are not being adequately satisfied by present course content. It therefore appears desirable to give some attention to possible modifications of the content of this important course. A realistic examination of desirable course content would lead to:

1. More emphasis upon the management point of view or the usefulness and weaknesses of accounting data.
2. More emphasis upon internal control.

3. Less use of C.P.A. examination questions for teaching material.
4. Organization of material to be covered in some logical sequence to give students a feeling of continuity from one subject to the next.
5. Omission of many strictly professional subjects and much material covered more adequately in other courses.

Little has been included in this discussion in regard to the level of attainment to be expected of intermediate accounting students. This of course varies directly with the position of the course in the curriculum. An intermediate text may require two semesters of preparation for students who commence accounting in the

freshman year, or may require only one semester of preparation for those who commence their accounting work in the sophomore or junior year. An important consideration here should be that the material covered in an intermediate course have the same emphasis and organization, whatever the level of offering. The same material might be given to students with less preparation, or be given more rapidly, or with a higher degree of accomplishment expected of students who have had more preparation. But the material, if selected properly, would benefit all students at the intermediate level in their accounting work.

ne
to
ne
at
ne
se
n,
ne
th
y,
nt
re
ed
he
ng

ANNUAL REPORT

1950

I

mem
coun
ago,
num
Asso
exce
if ne
oper
conc
activ

T
Har
was
in t
spea
whil
Sept
with

T
edit
tinu
prac
and
tion
new
The
nati
tion

T
yea
with
ants
tion
gran
Per
com
Her
San
tion
Pas

REPORT OF THE 1950 PRESIDENT

PERRY MASON

IT IS GRATIFYING to be able to report that the Association has had another successful year. The large increase in membership among the non-teaching accountants, which took place a few years ago, has been maintained and a substantial number of new members have joined the Association. The financial condition is excellent and the Association will be able, if necessary, to survive a period of difficult operations due to wartime or depression conditions and still carry on its normal activities.

The annual convention, held at the Harvard Business School in September, was well attended and those participating in the various sessions as chairmen and speakers made attendance well worth while. Apparently the plan of meeting in September on a university campus meets with the approval of most of the members.

The ACCOUNTING REVIEW, under the editorship of Frank P. Smith, has continued to serve instructors, students and practitioners with a series of significant and helpful articles, book reviews, solutions to CPA examination problems, and news items of members of the Association. The REVIEW has an impressive international reputation as a scholarly publication in the field of accounting.

The Association continued during the year to have close and cordial relations with the American Institute of Accountants. The Committee on CPA Examinations, the Committee on Internship Programs, and the Committee on Selection of Personnel cooperated with corresponding committees of the Institute. Past-president Hermann C. Miller and Vice-president Samuel J. Broad represented the Association at the Council meeting in April, and Past-president Thomas W. Leland was

our official representative at the annual convention.

We have established closer relations with the Controllers Institute of America and with the Institute of Internal Auditors, which should lead to significant results during the coming year. William J. Vatter represented the Association at the annual convention of the Controllers Institute and has been appointed chairman by President Garner of a new committee to work closely with its Committee on Education. One objective of our closer affiliation with these groups will be the further development of internship opportunities in the industrial field.

The Association was represented at a convocation of the University of Dayton by C. R. Niswonger, and at the inauguration of the new president of the Agricultural and Mechanical College of Texas by Past-president T. W. Leland.

COMMITTEE ACTIVITIES

One of the greatest satisfactions your President has received from his year's service is from the splendid cooperation of committee members. Around one hundred and twenty members of the Association have contributed generously of their time in the conduct of its activities. Almost no one declined a committee appointment, and many have spent much more time and effort than reasonably could have been expected.

The Executive Committee

The Executive Committee met with the 1949 Committee in Chicago in December 1949, in Columbus in May, in Boston in September, and in St. Louis, together with the 1951 Committee, in December 1950.

At its meetings the Committee receives

reports from officers and committee chairmen, approves the creation of new committees, adopts a financial budget, and advises and directs the officers as to numerous details of Association activities. The following list of actions includes the more significant decisions made during the year 1950 and indicates the nature of the work of this committee. The Committee:

1. Approved an increase in regular membership dues from \$4.00 to \$5.00. This increase was approved by the membership at the annual business meeting held during the September convention. The purpose of the increase in dues was to permit an increase in the size of the ACCOUNTING REVIEW, to facilitate more effective committee activities, and to meet the increased costs of operations.
2. Made no change in the annual dues of associate (student) members, which are now \$1.00. The following policies were, however, adopted as to qualifications for associate membership: (1) At the time of admission, the applicant must be enrolled in a school which is regularly recognized as an educational institution, and (2) the student's application must bear the signature of a teacher who is a regular member of the Association. The Committee on By-laws has been asked to prepare a recommendation to be presented at the next annual business meeting which will give the Executive Committee the power to modify the dues for associate membership from time to time. The policy will be to maintain these dues at an amount which approximates the out-of-pocket, or differential, costs to the Association of maintaining such memberships.
3. Approved the publication of an index to the ACCOUNTING REVIEW, a pamphlet on CPA Requirements, a reprint of the Paton & Littleton monograph, a new roster of the membership, a new information pamphlet, and a pamphlet on internship programs as a joint project with the American Institute of Accountants.
4. Approved a project of the Director of Research, Ralph C. Jones, in which an attempt will be made to discover research projects completed or in process in the field of accounting at the various colleges and universities. Lists of such projects will be published from time to time in the ACCOUNTING REVIEW.
5. Approved a new committee to work in cooperation with the Committee on Education of the Controllers Institute of America.
6. Declined to approve a request that membership cards be issued.
7. Approved the appointment of Filbey & Filbey as auditors of the books and records of the Association.
8. Considered but postponed action on a suggestion that dues be waived for members in the armed forces.
9. Denied the use of the Association's mailing facilities to a university press. This privilege has been extended to other accounting organizations.
10. Approved an increase in the honoraria granted to the Editor of the ACCOUNTING REVIEW and to the Secretary-Treasurer.
11. Approved the addition of a special section in the April number of the ACCOUNTING REVIEW, to be used for various reports of the officers of the Association.
12. Disapproved a proposal that the bulletins of the Committee on Accounting Procedure of the American Institute of Accountants be reprinted in the ACCOUNTING REVIEW.

Committee on Accounting Concepts and Standards

The Committee on Accounting Concepts and Standards, Willard J. Graham, Chairman, had an active year. At the September meeting of the Executive Committee, the following statement of the organization and duties of this committee was adopted:

A. Committee Organization:

1. The Committee shall consist of seven members appointed annually by the President with the approval of the Executive Committee. All members of the Committee shall be members of the American Accounting Association.
2. The Committee membership shall be rotated slowly in order that there may be provided a reasonable degree of continuity.
3. The chairman of the Committee shall be appointed annually by the President.
4. In years in which comprehensive statements of Accounting Concepts and Standards Underlying Corporate Financial State-

ments are to be prepared, the Committee shall be enlarged to not less than ten members, and shall include a member of each interim committee.

5. The President may appoint consultants to counsel the Committee. These consultants need not be members of the American Accounting Association.

B. Duties and Powers of the Committee:

1. The primary purpose of the Committee is the determination and expression of desirable accounting objectives and principles. Committee recommendations which set forth long-range objectives but which do not reflect current practice shall be so designated.
2. The Committee shall publish its findings in the form of serially numbered statements in the ACCOUNTING REVIEW.
3. Periodically, upon the direction of the Executive Committee, the Committee shall prepare a revision of the comprehensive statement of Accounting Concepts and Standards Underlying Corporate Financial Statements. This revised statement shall also be published as a Committee report.
4. All publications of the Committee shall require the approval of two-thirds of the Committee membership. Brief expressions of dissenting views, if any, shall be included in the Committee report.
5. All Committee reports shall include standard paragraphs which indicate their status.
6. The Committee shall have authority to appoint supplementary committees.
7. Approval shall be secured from the Executive Committee before any expenses shall be incurred.

It was also decided that the following statement should be placed just prior to the names of the members of the Committee at the conclusion of each published statement:

Statements of the Committee on Accounting Concepts and Standards represent the reasoned judgment of at least two-thirds of its members. They are not official pronouncements of the American Accounting Association or of its Executive Committee.

They shall not necessarily be viewed as stating rules of current professional conduct or procedure. Rather, they state objectives in the development of accounting principles. Some are intended

to have immediate applicability, while others forecast the general direction in which accounting may develop.

The first published statement in the series planned by the Committee is on the subject of "Reserves and Retained Income." A number of other topics are under consideration and are at various stages of completion.

Committee on CPA Examinations

The Committee on CPA Examinations, William J. von Minden, Chairman, has kept in close touch with the Educational Director of the American Institute of Accountants. The Committee's principal function is to assist in all possible ways in the maintenance and improvement of the CPA examination. A letter was sent to the teaching members of the Association soliciting examination material.

Committee on Internship Programs

The Committee on Internship Programs, David W. Thompson, Chairman, has directed its activities primarily toward the promotion of internship programs in the public accounting field. The Committee cooperated with the Committee on Education of the American Institute of Accountants in the preparation of a pamphlet intended for distribution to colleges and public accounting practitioners to promote the increased use of the internship plan and to improve the effectiveness of such programs.

The chairman spoke at a conference of accounting employers and accounting faculty members at the University of Michigan in April, at which the Association was also represented by Past-presidents Hermann C. Miller and Robert L. Dixon. Experiences with internship programs were described. The resultant discussion indicated the general acceptance of the advantages of internships by a substantial percentage of those in at-

tendance, but some confusion on the part of both accounting employers and schools as to the administrative techniques involved in inaugurating and developing such programs.

It is planned to devote more attention to the internship program in the industrial field during the coming year.

Committee on Governmental Accounting

The Committee on Governmental Accounting, Fayette H. Elwell, Chairman, has continued to cooperate with the National Committee on Governmental Accounting of the Municipal Finance Officers Association.

Membership Committee

The Membership Committee, Robert E. Walden, Chairman, is the largest committee of the Association. Each state and the District of Columbia, as well as Canada, has a member on this committee. Special attempts have been made to increase the number of teacher members, while welcoming the professional, governmental and industrial accountants who are interested in joining the Association. The number of regular members is now about 4,000.

Committee on National Accounting

The Committee on National Accounting, Francis M. Boddy, Chairman, has worked on problems in the field of national wealth and income. During the year the committee members exchanged correspondence and some progress was made in the accumulation of bibliographic material. The committee hopes to develop material in the future which will be of value to the statistician-economists working in this area.

Committee on Nominations

The Committee on Nominations, James L. Dohr, Chairman, had the responsibility

of nominating a slate of officers for the year 1951. The nominees named by the committee were all elected at the annual business meeting in September. At the instructions of the Executive Committee, the Committee made its selections in time so that the nominee for President could be invited to attend the meeting of the Executive Committee in September.

Committee on Selection of Personnel

The Committee on Selection of Personnel, Leo A. Schmidt, Chairman, cooperated closely with the corresponding committee of the American Institute of Accountants. The responsibilities of this committee relate to the development of the orientation and achievement tests sponsored by the American Institute. The Association committee advises and assists the Institute committee in the development of administrative policies, new examination material, etc. A number of matters of policy and procedure were settled during the year and it appears certain that the Institute will receive good cooperation from Association members in the development of future examinations.

Standards Rating Committee

The Standards Rating Committee, Hermann C. Miller, Chairman, has continued to work on a five-year assignment which was begun in 1949. The Committee is attempting to develop acceptable curriculum and staff standards for accounting instruction, both at the undergraduate and graduate level. An extensive report of the Committee was published in the January, 1951 number of the *ACCOUNTING REVIEW*. Copies of the report have been distributed to deans of collegiate schools of business, with requests for their comments.

Committee on Visual Aids

The Committee on Visual Aids, W. J. Fleig, Chairman, prepared a round table

program which was presented at the convention in September. During the year inquiries were answered on the making of aids, the sources of materials, machines and motion picture films. The members of the committee have planned a series of articles on visual aids to be published in the ACCOUNTING REVIEW.

Southern Regional Group

The Southern Regional Group, Harvey G. Meyer, Chairman, held its second annual meeting in May at the University of Tennessee. A successful program was presented and the group plans to continue its activities during the coming year.

Western Regional Group

The Western Regional Group has been inactive due to the conflict between the date of the annual convention of the Association and the corresponding conference of the Pacific Coast Economic Association with which the Western Regional Group has in the past been affiliated.

PUBLICATIONS

During the year a reprint was issued of the monograph: "An Introduction to Corporate Accounting Standards," by W. A. Paton and A. C. Littleton.

An index was prepared containing some 7,000 references to the ACCOUNTING REVIEW from 1926 through 1950, and the Papers and Proceedings from 1916 through 1925 of the American Association of University Instructors in Accounting. This index should be in the hands of all members of the Association by the time this report is published.

The Director of Research, Ralph C. Jones, and the Executive Committee, approved the publication of a manuscript prepared by Lydus Henry Buss, entitled "C.P.A. Examination Requirements." This pamphlet will contain a useful analysis of the various laws, rules and regulations relating to the CPA examination in the forty-eight states, the territories, the District of Columbia and Puerto Rico. It will be distributed to members of the Association early in 1951.

The complete roster of members, with the analysis by cities and schools, will not be published every year. Interim rosters will contain two sections—alphabetical and geographical.

The Secretary, Charles J. Gaa, prepared a new information pamphlet for the use of the Membership Committee and others in disseminating information regarding the Association.

Your retiring President considers it a high honor to have had the opportunity of serving the Association for the past year, and thanks most heartily the other officers and the chairmen and members of the various committees for their splendid cooperation. In particular he would like to mention Russell H. Hassler who was responsible, as Chairman of the Committee on Arrangements, for the excellent handling of the convention, and Samuel J. Broad of Peat, Marwick, Mitchell & Company, who, as Vice-president representing the accounting profession, was active and most helpful in the work of the Executive Committee.

MESSAGE FROM THE 1951 PRESIDENT

S. PAUL GARNER

IN SPITE of the troubled times in which we are now living your officers and Executive Committee are making plans for an eventful year in the history of the Association—a year of progress and forward looking action on the part of our several committees and many members.

The firm place of the Association in the American accounting scene is secure, but we must double and redouble our efforts if we are to stand in the forefront of accounting thinking in this country. In this connection, our influence would undoubtedly be strengthened if we could add to our membership the several hundred accounting instructors who are not now regular members. Also, there are, I am sure, at least a thousand or more persons in public and private accounting who are vitally interested in the purposes and work of our Association; these people should be urged to join with us and participate in our many activities. Each one of our present members should assume the responsibility and duty of securing at least one new member during 1951. This individual personal solicitation, added to the efforts of our Membership Committee, under the chairmanship of Professor Carson Cox of the Ohio State University, should enable us to grow materially in strength and numbers during the present year.

All of the regular and special committees of the Association have been carried over from 1950. The Committee on Cost Accounting Standards and Concepts was reactivated for 1951. While some new

members have been assigned to posts on these committees, enough of the former members have been retained to provide the desired continuity of thought and action needed on all committees which are continued from year to year.

At the suggestion of officers and members several new committees have been appointed for 1951; these new committees should be able to strengthen the activities of the Association in those areas of accounting in which we have done nothing (or very little) in recent years.

The members of the Association are urged to communicate ideas and suggestions to the chairmen and members of our many committees. While it is necessary for a group such as ours to exert itself principally through relatively small committees consisting at the most of a dozen members, all Association members should consider themselves ex officio members of any committee in which they have interest. This active participation can contribute a great deal to the influence which the Association may exert in the direction of progress in the art of accounting.

Plans are now being completed for the program of the annual convention of the Association to be held in Denver on September 6-7; our hosts will be the University of Denver. Your officers and Executive Committee sincerely hope that a large number of our members will find it possible to combine "business with pleasure" and be present at our annual meeting.

The
mini
Mas
atten
dred
Prof
their
Univ
The
prog
in th
Amo
F. T
erick
and
Harr
pres
N
dur
were
Edw
W. J
Thos
H. J
coun
seco
sided
Jone
Pato
Th
ing
Bost
Stew
tute
for
spea
Teel

NOTES ON THE 1950 ANNUAL CONVENTION

CHARLES J. GAA
Secretary-Treasurer

THE 1950 ANNUAL CONVENTION of the American Accounting Association was held on September 7 and 8 at the Graduate School of Business Administration, Harvard University, Boston, Massachusetts. The meetings, at which attendance was approximately four hundred, appeared to be quite successful. Professor and Mrs. Russell H. Hassler, their convention committees, and Harvard University did a fine job on arrangements. The speakers on morning sessions of the program, which will be printed in detail in the ACCOUNTING REVIEW, were Robert Amory, Jr., Robert E. Walden, Herbert F. Taggart, Joseph A. Mauriello, Frederick E. Horn, James E. Lordeman, Jr., and James O. Eaton. Vice Presidents Harry J. Ostlund and Robert D. Haun, presided.

Nine round table meetings were held during the first afternoon; the chairmen were David Himmelblau, S. Paul Garner, Edward J. Kelly, William J. von Minden, W. J. Fleig, Oscar S. Nelson, David W. Thompson, John A. White, and Ronald H. Robnett. A panel discussion on accounting theory was presented on the second afternoon. Samuel J. Broad presided and George R. Husband, Ralph C. Jones, Maurice Moonitz, and William A. Paton participated.

The annual banquet and business meeting were held at the Harvard Club of Boston on September 7. Mr. J. Harold Stewart, President of the American Institute of Accountants, spoke on "Education for Public Accounting." Guests at the speakers' table included: Mr. Stanley F. Teele, associate Dean of the Harvard

Business School, Mrs. J. Harold Stewart, Mr. Richard S. Chamberlain, President of the Massachusetts Society of Certified Public Accountants, Mrs. Carl E. Thoresen, Mr. Victor A. Davis, President of the Boston Control of the Controllers Institute of America, Mrs. Richard S. Chamberlain, Mr. Carl E. Thoresen, President of the Boston Chapter of the National Association of Cost Accountants, and Mrs. Victor A. Davis.

After Mr. Stewart concluded his address, President Perry Mason called the business meeting to order and made a report of the work of the committees and accomplishments of the Association during the year. Substantially the same report appears elsewhere in this section of the ACCOUNTING REVIEW. Next, the Secretary-Treasurer presented a brief oral report on the financial condition of the Association and made available printed copies of his more detailed annual report, which included audited financial statements for 1949 and opinion of Willett and Wharton, Certified Public Accountants and interim financial statements and membership statistics for the first eight months of 1950.

Two important actions were taken by the members. First, they voted unanimously to increase membership dues from \$4.00 to \$5.00 per year. This increase plus increases in subscription and advertising rates are necessary to cover increased costs and to carry on the expanded activities outlined in the reports of outgoing President Mason and incoming President Garner. Second, they approved a resolution presented by Mr. Willard J. Graham,

Chairman of the American Accounting Association Committee on Accounting Concepts and Standards, regarding amendment of Regulation S-X of the Securities and Exchange Commission. The resolution was:

Whereas the development of accounting principles and accounting practices is a process which is necessarily continuous in order that they may be kept current with changing economic conditions, and

Whereas it is to the public interest that such development continue so that financial statements may serve as well as possible the needs of investors and other interested parties, and

Whereas experience has shown that the establishment of accounting principles by rule or regulation in certain fields has retarded such development

Now therefore be it resolved by the members of the American Accounting Association in meeting assembled:

that the establishment by rule or regulation of accounting principles, however meritorious in themselves they may currently seem to be, would tend to hamper the development of accounting and prevent the free exercise of judgment, in accordance with accepted principles, as to the most useful presentation of financial data, and that accordingly certain proposals of this nature contained in a draft of a pro-

posed amendment of Regulation S-X of the Securities and Exchange Commission would not be in the long range public interest, and

Be it further resolved that the contents of this resolution be made known to the Securities and Exchange Commission.

Professor Thomas W. Leland presented the report of the Nominating Committee, which nominated the following persons as officers for 1951:

President—S. Paul Garner, University of Alabama

Vice-President—Russell H. Hassler, Harvard University

Vice-President—Frederick E. Horn, Columbia University

Vice-President—John W. McEachren, of Touche, Niven, Bailey and Smart

Secretary-Treasurer—Charles J. Gaa, University of Illinois

Director of Research—Ralph Jones, Yale University

Editor of the ACCOUNTING REVIEW—Frank P. Smith, University of Rochester

The new officers were elected unanimously; Mr. Garner made a speech of acceptance. The meeting was then adjourned.



REPORT ON EXAMINATION OF RECORDS

For the year ended Dec. 31, 1950

January 31, 1951

Executive Committee
American Accounting Association
Urbana, Illinois

Gentlemen:

In accordance with an arrangement made with your Secretary-Treasurer we have examined the Balance Sheet of the American Accounting Association as of December 31, 1950, and the Income Statement and the Net Worth Account of the General Fund and of the Membership Fund for the fiscal year ended on that date.

We reviewed the accounting procedures of the organization, and without making a detailed audit of the transactions, we examined and tested the accounting records and other supporting evidence by methods and to the extent we deemed appropriate. Our examination was made in accordance with generally accepted auditing standards applicable in the circumstances and included all procedures that we considered necessary. The receivables were not confirmed by direct correspondence. It will be observed that

the total of these is very small in comparison with the total assets of the Association.

We found that your records have been kept very conservatively: Inventories of Association publications have not been set up on the books, but all costs have been consistently charged to operations in the year of printing. Fixed assets, also, have been charged to expense when acquired. All uncollected dues receivable as of December 31, 1950, had been written off.

In our opinion, the accompanying Balance Sheet and related Income Statements and Net Worth Accounts present fairly (and conservatively) the position of the Association on December 31, 1950, and the results of its operations for the fiscal year, in conformity with generally accepted accounting principles (except as indicated in the preceding paragraph), applied on a basis consistent with that of the preceding year.

Respectfully submitted

FILBEY & FILBEY

Certified Public Accountants

The Accounting Review

AMERICAN ACCOUNTING ASSOCIATION

Exhibit A.—Consolidated Balance Sheet

December 31, 1950

<i>Assets</i>	<i>General Fund</i>	<i>Life Membership Fund</i>	<i>Combined Funds</i>
<i>Cash</i>	\$ 6,345.10	\$ 5,666.53	\$12,011.63
<i>U. S. Savings Bonds, Series F</i>			
Maturity Value.....	\$17,400.00	\$ 7,400.00	\$24,800.00
Less Discount.....	4,036.80	1,096.20	5,133.00
Redemption Value.....	\$13,363.20	\$ 6,303.80	\$19,667.00
<i>Receivables</i>			
Advertisers.....	\$ 81.00	\$ —	\$ 81.00
Miscellaneous.....	132.54	196.70	329.24
Total.....	\$ 213.54	\$ 196.70	\$ 410.24
Less Allowance for Doubtful Accounts.....	25.00	25.00	50.00
Net Receivables.....	\$ 188.54	\$ 171.70	\$ 360.24
<i>Prepaid Expenses</i>			
Stationery and Postage.....	\$ 449.20	\$ —	\$ 449.20
Office Supplies and Forms.....	433.68	—	433.68
Index Expenses, ACCOUNTING REVIEW.....	—	342.25	342.25
Total.....	\$ 882.88	\$ 342.25	\$ 1,225.13
<i>Office Equipment</i>	\$ 1.00	—	\$ 1.00
Total Assets	\$20,780.72	\$12,484.28	\$33,265.00
<i>Liabilities and Net Worth</i>			
<i>Accounts and Accrued Expenses Payable</i>			
Travel and Meeting Expenses.....	\$ 275.00	\$ —	\$ 275.00
Membership Roster, 1950.....	1,700.00	—	1,700.00
Printing Office Supplies.....	200.41	15.09	215.50
Federal Taxes Withheld.....	437.71	9.91	447.62
Miscellaneous.....	97.92	21.20	119.12
Total.....	\$ 2,711.04	\$ 46.20	\$ 2,757.24
<i>Deferred Credits to Income</i>			
Members' Dues.....	\$ 769.61	—	\$ 769.61
Associate Members' Dues.....	1,939.75	—	1,939.75
Subscriptions.....	2,041.99	—	2,041.99
Total.....	\$ 4,751.35	—	\$ 4,751.35
<i>Total Liabilities</i>	\$ 7,462.39	\$ 46.20	\$ 7,508.59
<i>Net Worth December 31, 1950</i>	13,318.33	12,438.08	25,756.41
Total Liabilities and Net Worth	\$20,780.72	\$12,484.28	\$33,265.00

Annual Report

257

AMERICAN ACCOUNTING ASSOCIATION GENERAL FUND

Exhibit B.—Statement of Income and Expense

For the Year ended December 31, 1950

Income

Members' Dues.....	\$14,976.85	
Associate Members' Dues.....	4,748.30	
Subscriptions to ACCOUNTING REVIEW.....	3,413.21	
Single Issue Sales.....	429.53	
Advertising.....	3,788.00	
Sale of "Accounting Concepts".....	56.35	
Interest.....	154.40	
Miscellaneous.....	22.37	\$27,589.01

Expense

Printing and Mailing Expense:		
ACCOUNTING REVIEW.....	\$12,858.21	
Reprints.....	311.57	
Membership Campaign.....	174.16	
Membership Roster.....	1,746.80	
Concepts and Standards Booklet.....	122.62	\$15,213.36
Travel and Meeting Expense:		
Executive Committee.....	\$ 2,225.39	
Personnel Selection Committee.....	162.60	
Accounting Concepts and Standards Committee.....	751.87	
Southeast Area Meeting.....	50.00	
Miscellaneous.....	125.00	3,314.86
Clerical Salaries*.....	2,847.56	
Honoraria.....	2,200.00	
Convention Expense (net).....	1,515.30	
Office Supplies, Printing and Other Expenses*.....	1,540.90	
Insurance.....	47.18	
Provision for Doubtful Accounts.....	25.00	
Audit Fee*.....	93.00	
Miscellaneous.....	41.42	26,838.58

Net Income, 1950.....\$ 750.43

Net Worth Account

Balance January 1, 1950.....	\$12,178.35	
Deduct: Adjustment for net costs now charged to 1949 operations.....	610.45	\$12,567.90
Add: Net income for 1950.....		750.43
Balance December 31, 1950.....		\$13,318.33

* See note on page 258.

The Accounting Review

AMERICAN ACCOUNTING ASSOCIATION
LIFE MEMBERSHIP FUND

Exhibit C.—Statement of Income and Expense
For the Year ended December 31, 1950

<i>Income</i>			
Sale of Paton and Littleton Monograph.....	\$1,799.56		
Sale of Moonitz Monograph.....	142.02		
Life Membership Contribution.....	100.00		
Interest Income.....	223.81	\$ 2,265.39	
<i>Expense*</i>			
Printing Paton and Littleton Monograph.....	\$ 862.51		
Storage and Future Handling Paton and Littleton Monograph.....	144.00		
Royalties, Moonitz Monograph.....	14.20		
Office Supplies, Printing and Other Expense.....	168.91		
Clerical Salaries.....	214.33		
Provision for Doubtful Accounts.....	25.00	1,428.95	
<i>Net Income, 1950</i>		\$ 836.44	
<i>Net Worth Account</i>			
<i>Balance January 1, 1950</i>		\$11,591.10	
Add: Adjustment for Income carried back as credit to 1949 operations.....	\$ 10.54		
Net Income, 1950.....	836.44	846.98	
<i>Balance December 31, 1950</i>		\$12,438.08	

* Office salaries, supplies, printing, and other expenses applicable to the office of the Association, together with the 1950 audit fee, were apportioned between the General Fund and the Membership Fund on the basis of the approximate ratio of the income of each fund to the total income of both funds.

THE TEACHERS' CLINIC

FRANK S. KAULBACK, JR.

EDITOR'S NOTE: Many of the experienced teachers, as well as some of the new ones, have developed devices and techniques for the presentation of certain of the knotty aspects of accounting, and it is felt that such suggestions might well be made available to the other members of the teaching profession through *The Teachers' Clinic*. Accordingly, contributions are hereby invited. Please address all correspondence to Frank S. Kaulback, Jr., School of Commerce, University of Virginia, Charlottesville, Virginia.

ANALYSIS OF A QUESTIONNAIRE SENT TO 1000 ALUMNI OF THE UNIVERSITY OF ILLINOIS, COLLEGE OF COMMERCE*

H. T. SCOVILL

University of Illinois

Alumni of the College of Commerce and Business Administration think that the subject Principles of Accountancy is of greatest importance in a curriculum leading to a degree from the College. Written English stands second in their estimation with Principles of Economics third, Business Law fourth, and Oral English fifth. These conclusions are reflected in a summary of replies to a questionnaire sent to one thousand alumni in the classes of 1915-1947. The same questionnaire revealed that 85% of the alumni who were graduated in fields of specialization other than accountancy believe that either three or four semesters of accountancy should be required of all students in the College. (Of course, those who major in accountancy are required to take from ten to twelve courses.) The alumni questioned were selected on an approved statistical basis, and included appropriate proportions of the alumni body by classes and by fields of major interest. Thirty-four per cent of the respondents were majors in accountancy and 66% were graduated in other fields. This is substantially in proportion to the relative registration percentage in the years covered.

Including the first five subjects mentioned above, preferences ran as follows through the tenth choice—

1. Principles of Accountancy
2. Written English
3. Principles of Economics
4. Business Law
5. Oral English
6. Salesmanship & Advertising
7. Corporation Finance
8. Labor Problems
9. Fundamentals of Cost Accounting
10. Personnel Administration

The question as presented to the alumni on this topic was adopted from one of similar type and purpose drafted by the American Council on Education in a survey it made several years ago on Business Education at the Collegiate Level.

Of the 1000 questionnaires sent out 471 complete replies were received and 40 were returned because of unsatisfactory addresses. Of the 471 replies received 424 or 90% listed Principles of Accountancy, 394 or 84% listed Written English, and 391 or 83% listed Principles of Economics as of primary importance.

Another substantiation of the point of view of the alumni relative to the first

* September, 1949.

five subjects in importance is the fact that they were also the ones recognized as the most indispensable. Not even one of the 471 respondents marked Principles of Accountancy or Business Law as "of doubtful or no value" and only one each marked Principles of Economics, Written English and Oral English in that category.

The second topic in the questionnaire deals with the number of semesters of accountancy that should be required of students in the College of Commerce. Of the *non-accountancy* majors (66% of the total replies) 85% indicated that at least three semesters of accountancy should be

required of all students. Their preferences were expressed by these figures—

Four semesters should be required.....	49%
Three semesters (2 principles, 1 cost).....	20%
Three semesters (2 principles, 1 intermed.).....	16%
Total non-accountancy majors voting for 3 or more semesters.....	85%

It is interesting to observe that 49% of the non-accountancy majors feel that four semesters of accountancy should be required for their group.

That the majors in accountancy were not unduly biased in their point of view is evidenced by the fact that only 61% of them voted in favor of a four-semester requirement for non-accountancy majors.

DEVELOPMENT OF AN INSTRUCTIONAL APPROACH TO THE STATEMENT OF FUNDS

OSCAR S. GELLEIN
University of Denver

The intermediate accounting student encounters a number of difficulties in his first study of the Statement of Funds. Gaining an understanding of the technical term "funds" presents the first major hurdle. The development of a method of logical analysis which can be applied to the available financial data presents a more difficult student problem. The principal purpose of this discussion is to consider ways and means of developing a teaching technique which will encourage student understanding of the necessary analysis of the data which are available in preparing the traditional type of Statement of Funds. The advisability of substituting another technical term for the much abused word "funds" is not a part of this consideration. Furthermore, there is no intent to give especial consideration to the form and arrangement of the Statement of Funds.

It is assumed that in presenting the Statement of Funds topic the balance

sheets prepared at the end of two consecutive years, the income statement for the intervening year, the analyzed Retained Income account, and analyses of certain non-funds accounts are available. The term "non-funds accounts" is used to describe all balance sheet accounts except the current asset and current liability accounts. The current asset and current liability accounts are referred to as "funds accounts."

The major portion of the student's accounting training prior to the consideration of the Statement of Funds dealt with topics in which account balances were primarily significant and account balance changes were secondary in importance. In preparing the Statement of Funds, changes in account balances are of paramount importance; hence, it is particularly important that the instructor discover a technique which will emphasize the attention that must be given to changes in account balances. As a result of creating the

balance sheet dichotomy which recognizes two classes of items, funds accounts and non-funds accounts, it is possible to classify all transactions into four groups.

Class	Events recorded in entries which	Example
I	Dr.—Funds account Cr.—Funds account	Collection of an accounts receivable
II	Dr.—Non-funds account Cr.—Non-funds account	Stock dividend
III	Dr.—Funds account Cr.—Non-funds account	Issue of bonds for cash
IV	Dr.—Non-funds account Cr.—Funds account	Purchase of a fixed asset for cash

Since the emphasis in preparing the traditional type of Statement of Funds is placed upon changes in balance sheet items, it must be recognized that income statement accounts are non-funds accounts since they are reflected in the change in Retained Income.

Having recognized all possible classes of transactions in terms of effects on funds the next step is to analyze each class in relationship to its specific effect on funds. Obviously, Class I events caused no change in the amount of funds but merely effected a change in the distribution of funds. Likewise Class II events caused no change in the amount of funds and furthermore caused no change in the distribution of funds. Class III and Class IV events, however, did cause changes in the amount of funds. Class III transactions caused the amount of funds to increase; therefore, funds were provided by events which were recorded as Class III entries. Events recorded as Class IV entries caused the amount of funds to decrease; therefore, funds were applied in such transactions.

In considering this closed classification of entries it will become obvious to the student that the significant information required to prepare the Statement of Funds is to be found in the analysis of the changes in the non-funds accounts. He

will discover that he need not be particularly concerned with Class I entries. He will learn that sources of funds are to be found in the credit entries to non-funds accounts and that applications of funds will be reflected in the debits to non-funds accounts. Furthermore, it will become obvious to the student that he must discover the Class II entries in order that they can be separated from the entries which recorded the events that resulted in changes in funds. This type of analysis is particularly helpful to the student in analyzing a non-funds account in which the change for the period was caused by a number of heterogeneous transactions, such as an analysis of the Retained Income account.

This instructional approach prepares the student for the mechanical steps necessary to prepare the Statement of Funds regardless of the type of work-sheet used to facilitate the preparation of the formal statement. He has discovered a method of analysis which will permit him to determine the events which provided funds, those which applied funds, and those which resulted in entries causing changes in non-funds accounts with no concurrent effect on funds or their distribution.

Still another difficulty encountered by the student is that of acquiring an understanding of the reasons for adding the amortization of non-current assets to the net income in order to measure the stream of funds which flow into the funds reservoir from operations. Recognition of the classes of entries previously described should aid in gaining this understanding since the entries recording the amortization of non-current assets fall into Class II and it has been noted that such entries caused no changes in funds. A simple but lucid illustration which can be used to further emphasize this point is that of carefully examining the items of an income statement in relation to the flow of funds:

The X Co.
Statement of Income (condensed)
For the year ended December 31, 1948

	<i>Reported</i>	<i>Caused Funds Changes</i>
Revenue.....	\$200,000	\$200,000
Deduct		
Cost of goods sold*.....	140,000	140,000
Wages.....	15,000	15,000
Depreciation.....	4,000	—
Other*.....	25,000	25,000
	<hr/> \$184,000	<hr/> \$180,000
NET INCOME.....	\$ 16,000	
Depreciation.....	4,000	
FUNDS PROVIDED BY OPERATIONS.....	\$ 20,000	\$ 20,000

* Does not include amortization of non-current assets.

From this simple illustration the student observes that in order to measure the stream of funds flowing into the reservoir of funds from operations it is necessary to add the depreciation charge to the net income. An excellent opportunity is provided for consideration of the advisability of showing as a single amount with appropriate label, the funds provided by

operations rather than showing the details of its determination in the formal statement. Certainly, the statement presentation which discloses the adding back of the charges for amortization of long-term costs has caused sufficient confusion to justify the single-amount presentation. In addition it becomes appropriate to consider the advisability of preparing a Statement of Funds which discloses the stream of funds flowing from revenue as a source of funds and the flow of funds represented by expenses which consumed funds as an application of funds.

Incidental to this method of analysis is the existence of an excellent opportunity to acquaint the student with the relationship between the recording of depreciation and the flow of funds. It should become obvious to the student that the recording of depreciation does not provide funds, and any notion that he might have had that the recording of depreciation created funds in some mystical manner will have been dispelled.

THE ACCOUNTING SENIOR SEMINAR IN THE WHARTON SCHOOL

ADOLPH MATZ
University of Pennsylvania

Senior Research:

Until 1945 the University of Pennsylvania Bulletin of the Wharton School of Finance and Commerce stated that "each student is required, in his Senior year, to make an individual and independent investigation in his chosen field, upon which he must write a satisfactory thesis." To guide the student in the preparation of the thesis, he was assigned to an instructor for personal supervision. Towards the end of the second term of the Senior year the student turned in his thesis for final approval which was necessary for graduation.

The senior research requirement had been under continuous criticism and scrutiny for several years before the war. It was felt that the education of young men toward future leadership in business, commerce, and finance needed a somewhat tighter program which would be more all-inclusive than the scheme offered at that time. The Senior Research program was redesigned, resulting in two separate but complementary steps: the Senior Seminar and the Comprehensive Examination.

The purposes of the Seminar are:

1. To take account of current developments,

2. To integrate the work of the several courses,
3. To afford an opportunity to do supervised research.

The purpose of the Comprehensive Examination is to determine whether the student is reasonably proficient in the field of his special interest. In general, the examination includes the subject matter of courses in the student's field of concentration or specialization, as well as courses he has been required to take in related fields.

The coordination and integration of the work in each student's field of concentration is considered the chief aim of this new program. To achieve this goal a senior seminar section is limited to twelve students who meet once a week for two hours. Each seminar student is expected to develop a reasonable degree of competence in the technique of report writing. Research results, in the form of written papers, however, are regarded as an incidental by-product of the program. More important is the constant synthesis and coordination of the subject matter with which the student is or should be familiar. Naturally, students who have completed a greater number of accounting courses than others will have a slight advantage. It is the task of the program and the instructor to guide those students lacking certain background material toward some kind of equalization at the time of the comprehensive examination.

The selection of a topic is assisted by the issuance of a list of topics from which the student can choose. If a student has a special interest in some problem the instructor will permit him to pick his own topic. In general, the topic selected should call for contact with the subject matter of the several courses. At times it is possible to subdivide a topic into smaller segments which are assigned to various students whose total contribution leads to a well-

covered treatment of the whole subject. The instructor will then aid the student in his investigation and offer constructive criticism and suggestions. His chief task, however, is to make certain that the student remains fully aware of the ramifications of the topic on which he is working.

The Accounting Senior Seminar Program:

In order to meet the goal of this new plan of instruction, the accounting department had to overcome a few initial difficulties. Since the inception of the plan in Fall, 1947, the accounting seminar necessitated from 13 to 16 sections with twelve students per section. This sudden concentration of so many students into the same type of study program taxed the limited number of texts, journals, magazines, and bulletins. The Wharton School Library possesses all the material generally required in the various fields, yet only one copy of each is subscribed for or purchased. The assignment of current articles to 150 or 200 students had to be abandoned. On the other hand, this being a "Seminar," it seemed desirable to allow the student a certain amount of independent action with regard to the reading matter he might select for a topic under discussion in the seminar section. Such a liberal attitude had to be abandoned because it was discovered that even a senior is still an undergraduate who needs to be told the sources he is to examine. These considerations led to a compromise plan wherein assignments are made to the sections, with the students debating the various points and the instructor acting as coordinator. Thus, a heavy burden falls upon the instructor who is expected to be fully acquainted with modern trends and current literature.

At present, the student purchases "An Introduction to Corporate Accounting Standards" by Paton and Littleton, and the "AIA Research Bulletins." Assignments are also made in Paton's "Advanced

Accounting," Gilman's "Accounting Concepts of Profits," George O. May's "Business Income and Price Levels—An Accounting Study," Arthur H. Dean's "An Inquiry into the Nature of Business Income under Present Price Levels," the "Accountants' Handbook," the AAA statement on "Accounting Principles Underlying Corporate Financial Statements," and its 1948 revision, Sanders, Hatfield and Moore's, "A Statement of Accounting Principles," SEC Accounting Releases, SEC Case Studies, and Paton's articles on "The Accountant and Private Enterprise" and "Accounting Procedures and Private Enterprise."

Before discussion of the text material gets under way, the instructor lectures on the various phases of methodology, such as the compilation of a bibliography, the taking of notes, the setting up of the thesis, the quoting of sources in text and footnotes. These topics are of great value and of absolute necessity to the research student. The research job is further aided by (1) a lecture by a staff member of the Lippincott Library, and (2) by a visit to the Library where staff members show the students the location of the books and catalogues which the lecturer mentioned. The "Accountants' Index" and general indexes, such as the "Cumulative Book Index," the "Public Affairs Information Service," the "Industrial Arts Index," the "New York Times Index" and other special reference indexes are shown and explained with respect to the type of information that can be found in each. The student is introduced to the selected periodicals in the field of accounting, such as the *ACCOUNTING REVIEW*, the "Journal of Accountancy," the "Controller," the "N.A.C.A. Bulletins" and "Yearbooks," the "Certified Public Accountant" and foreign journals and magazines published in Canada, England, and Australia. The main publications in the field of Industrial

Management, Economics, and Finance are pointed out as being of value in the research job. Finally, the "services," like Moody's, Standard and Poor's, Commerce Clearing House, and Prentice-Hall's are explained and described. By the end of the fourth week the student has made a selection of a topic and notifies the instructor of his choice.

The balance of the first term is devoted to a discussion of accounting phases such as Terminology, Accounting Principles, Standards and Conventions, Entity Theory, Cost Principle, Income Determination, Depreciation, Price Level Changes, SEC Regulations, etc.

The second term is devoted chiefly to the student's research paper. The reporting student provides each member of the seminar with a typed outline of his thesis. The student does not read the paper, but should have notes to guide him, and is expected to be thoroughly familiar with the subject to permit an unhampered delivery. Many students support their talk with forms and charts on the blackboard. The talk is followed by a discussion period which often results in a spirited and lively session. Two weeks after the student has made his report in the seminar, the final copy of his thesis must be in the hands of the instructor. This method permits an opportunity to return the paper to the student for changes, corrections, and improvements.

The three-hour comprehensive examination is scheduled for a day three weeks prior to the start of the regular examination period. This allows independent preparation without serious conflict with other course examinations. The questions are of the essay type and intend to survey once more the entire field of accounting study.

Evaluation:

The Accounting Seminar is now in its

fourth year. While at first the student is rather perplexed by this new mode of instruction after having been exposed to daily, weekly or monthly quizzes, and to home problems, he begins soon enough to appreciate and enjoy this new academic freedom which permits him to express himself more freely on the questions

and problems which could never be covered fully in other accounting courses. Furthermore, the seminar has lifted the student out of the textbook procedure and has offered him a broader view of the importance, significance and opportunity of business in general and accounting in particular.

PROFESSIONAL EXAMINATIONS

A Department for Students of Accounting

HENRY T. CHAMBERLAIN

THE FOLLOWING problems were prepared by the Board of Examiners of the American Institute of Accountants and were presented as the second half of the November, 1950 C.P.A. Examination in accounting practice. The candidates were required to solve all problems. The time allowed was four and a half hours. The weights assigned were: Problem 1, 8 points; Problem 2, 12 points; Problem 3, 30 points.

A suggested time schedule is given below:

Problem 1	30 minutes
Problem 2	60 minutes
Problem 3	100 minutes

[Solve all problems]

No. 1

Adams, Baker, Charles and Day are partners. Their interests in the capital and their profit and loss ratios are as follows:

Adams.....	40%
Baker.....	30%
Charles.....	20%
Day.....	10%

To provide a means whereby the remaining partners might purchase a deceased partner's interest from his estate, a life insurance program was inaugurated whereby life insurance proceeds would be paid to the remaining partners in proportion to their percentage ownership in the partnership. Since each partner was in effect insuring the life of each of the other partners, it was agreed that no partner would pay any part of the premiums on policies covering his own life.

In 1949 the premium on all policies amounted to \$9,000, which was charged as an expense on the books and thereby deducted from the year's profit. The profit was then credited to each partner in proportion to his ownership percentage.

Investigation of the insurance premiums revealed the following:

Premium on life of Adams.....	\$3,500
Premium on life of Baker.....	1,400
Premium on life of Charles.....	2,300
Premium on life of Day.....	1,800

You are to prepare the correcting entry that should be made to the partners' capital accounts in order to reflect properly the agreement as to the insurance. Give your supporting computations in good form.

No. 2

James Jones had the following transactions in the stock of the O'Mara Corporation:

1. January 7, 1942, purchased 200 shares of \$100 par value common stock at \$110 per share.
2. The corporation was expanding and, as of March 1, 1943, issued to Mr. Jones 200 rights, each permitting him to purchase one-fourth share of common stock at par. The bid price of the stock on March 1, 1943 was 140. There was no quoted price for the rights.
3. Mr. Jones was advised that he would "lose out on his other stock if he did not pay in the money for the rights." He, therefore, paid for the new shares on April 1, 1943, charging the payment to his investment account. Since

he felt that he had been assessed by the company, he credited the dividends (10% in December of each year) to the investment account until the debit was fully offset.

4. In December 1947, Mr. Jones received a 50% stock dividend from the company. He made no entry for this dividend because he expected to sell the shares received. He did sell them in January 1948 for \$160 per share. He credited income with the proceeds.
 5. In December 1948, the stock was split on a two-for-one basis and the new shares were issued as no par shares. Mr. Jones found that each new share was worth \$5 more than the \$110 per share which he paid for his original stock, so he debited investment with the additional shares received at \$110 per share and credited income.
 6. In June 1949, Mr. Jones sold one-half of his stock at \$92 per share. He credited the proceeds to the investment account.
- a. You are to set up the investment account as it was kept by Mr. Jones.
 - b. Prepare a schedule showing an analysis of the account as the transactions should have been recorded, using the "average cost" method for recording stock sold.
 - c. Prepare the entries that would be necessary to correct the income of each of the years in which Mr. Jones held the stock.

No. 3

The following operating figures are obtained from the books of the March Manufacturing Company at December 31, 1949:

Sales.....	\$903,900
Purchases.....	\$418,052
Processing labor.....	88,000
Processing burden.....	132,000
Baling labor and expense.....	4,104
Selling and general expense.....	126,732
Interest expense.....	4,902
Discounts allowed.....	1,600
Federal income taxes.....	69,000
State income taxes.....	13,000

The company was organized on January 1, 1949 to process certain waste material from textile mills. Most of the material processed by the company was purchased by it, but during 1949 it has processed some materials under a contract with another company.

The material which it processes on a contract basis is consigned to the company. When complete it is billed back to the accommodated company at a processing charge per pound. The same number of pounds received is billed back, and the charge includes an amount charged for baling as well as for processing. The material processed on a contract basis can be identified, and losses in process are borne by the owner of the material, which are the same percentage of material processed as applies to material consumed in processing merchandise for sale. Such losses occur after the material has been processed, but before baling, and are due to discarding sub-standard production. Discarded material processed under contract is returned unbaled to the owner. The company makes a practice of selling its discarded product unbaled as it is set aside.

The two departments of the company are Processing and Baling. After coming from the processing department, the material is baled, using 400 pounds of processed material to the bale. Costs are separated by departments, and the amounts given above include the cost of processing and baling the merchandise for sale and also the merchandise manufactured for other concerns. A fraction of a bale is considered to cost as much for baling as a full bale.

An analysis of the sales account reveals the following facts:

Sales of finished product—4,200 bales.....	\$840,000
Sales of contract goods—360,000 lbs. at 15¢ processing charge.....	54,000
Sales of scrap material.....	9,900
	<u>\$903,900</u>

The purchases account shows debits for 2,080,000 pounds of material at \$.20 per pound. The remaining amount shown in the account is for material used in baling the product.

In addition to the finished product sold, the company manufactured 75 bales of finished product which remain on hand. The inventory of material on hand December 31, 1949 amounts to 200,000 pounds. The goods in process weigh 80,000 pounds and are 50% complete in the Processing Department. There is no inventory in the Baling Department and there is no contract work in process at December 31.

You are to prepare a formal statement of Income and Expense for the year. This should be supported by a detailed Statement of Cost of Goods Sold and a Schedule of Manufacturing Costs by departments showing unit costs.

Solution to Problem 1

COMPUTATION OF ADJUSTMENT OF CAPITAL Accounts for Insurance Premiums on the Lives of Partners

	Total	Adams	Baker	Charles	Day
Premium on Adams insurance.....	\$3,500.00		\$1,750.00	\$1,166.67	\$ 583.33
Proportions.....			3/6	2/6	1/6
Premium on Baker insurance.....	1,400.00	\$ 800.00		400.00	200.00
Proportions.....		4/7		2/7	1/7
Premium on Charles insurance.....	2,300.00	1,150.00	862.50		287.50
Proportions.....		4/8	3/8		1/8
Premium on Day insurance.....	1,800.00	800.00	600.00	400.00	
Proportions.....		4/9	3/9	2/9	
Premium Charges (per agreement).....	\$9,000.00	\$2,750.00	\$3,212.50	\$1,966.67	\$1,070.83
Premium Charges (per books).....	9,000.00	3,600.00	2,700.00	1,800.00	900.00
Over* or under charge.....	—	*\$ 850.00	\$ 512.50	\$ 166.67	\$ 170.83

Adjustment

Baker, capital.....	\$512.50
Charles, capital.....	166.67
Day, capital.....	170.83
Adams, capital.....	\$850.00
To adjust capital accounts in accordance with schedule above.	

Solution to Problem 2

(a)

Investment in O'Mara Corporation (per books)

	Dr.	Cr.
1/ 7/42 Purchased 200 shares \$100.00 par.....	\$22,000.00	
4/ 1/43 Purchased 50 shares with rights issued on 3/1/43.....	5,000.00	
12/31/43 Dividend received (10%).....		\$ 2,500.00
12/31/44 Dividend received (10%).....		2,500.00
12/31/48 Stock split two for one. 250 additional shares received @ 110 per share....	27,500.00	
6/30/48 Sold 250 shares @ 92.....		23,000.00
Balance.....		26,500.00
	<u>\$54,500.00</u>	<u>\$54,500.00</u>

Professional Examinations

269

		<i>Investment in O'Mara Corporation</i> (Corrected)	
		<i>Dr.</i>	<i>Cr.</i>
1/ 7/42	Purchased 200 shares \$100.00 par	\$22,000.00	
4/ 1/43	Purchases 50 shares with rights issued on 3/1/43.....	5,000.00	
12/31/47	Received 125 shares as a stock dividend.....		
1/31/48	Sold 125 shares for \$20,000. Average cost of stock sold.....		\$ 9,000.00
12/31/48	Stock split. Received new certificate for 500 shares in exchange for 250 shares previously held.....		
6/30/49	Sold 250 shares for \$23,000.00. Average cost of stock sold.....		9,000.00
	Balance		9,000.00
		<u>\$27,000.00</u>	<u>\$27,000.00</u>

Solution to Problem 2

		<i>Adjusting Journal Entries</i>	
		(1)	
Investment account.....		\$ 5,000.00	
Profit and loss—1943.....			\$ 2,500.00
Profit and loss—1944.....			2,500.00
To correct investment account for cash dividends improperly credited thereto.			
		(2)	
Profit and loss—1948.....		\$27,500.00	
Investment account.....			\$27,500.00
To reverse entry made at the time of the stock split			
		(3)	
Profit and loss—1948.....		\$ 9,000.00	
Investment account.....			\$ 9,000.00
To adjust above accounts for costs of 125 shares sold in January, 1948.			
		(4)	
Investment account.....		\$14,000.00	
Profit and loss—1949.....			\$14,000.00
To adjust above accounts for profit on sale of 250 shares in June, 1949 which was improperly credited to investment account.			

Solution to Problem 3

<i>Processing Department</i>			
	<i>Units</i>	<i>Cost</i>	<i>Unit Cost</i>
Raw material used—own production	1,880,000	\$376,000.00	\$.20
Labor—own and contract production.....	*2,200,000	88,000.00	.04
Burden—own and contract production.....	*2,200,000	132,000.00	.06
Total cost.....		<u>\$596,000.00</u>	<u>\$.30</u>
Less salvage recovery on 90,000 lbs. (5% of 1,800,000 lbs. completely processed).....		9,900.00	
Net cost.....		<u>\$586,100.00</u>	
Less:			
Contract work delivered to baling operation (360,000 lbs. @ \$.10 lb.).....		\$ 36,000.00	
Own production delivered to baling operation (1,800,000 lbs. less 90,000 lbs. of salvage).....		530,100.00	\$.31
		<u>\$566,100.00</u>	
Inventory in process (80,000 lbs. @ \$.25 per lb.).....		<u>\$ 20,000.00</u>	

* The number of units of labor and overhead are computed as follows:

Pounds of raw material—own production—fully processed.....	1,800,000 lbs.
Pounds of raw material—own production—partially processed (80,000 lbs.) equivalent to fully processed material of.....	40,000 lbs.
Pounds of contract material fully processed.....	360,000 lbs.
	<u>2,200,000 lbs.</u>

The Accounting Review

Baling Department

	Bales	Cost	Unit Cost
Supplies.....	5,130	\$2,052.00	\$.40
Labor and expense.....	5,130	4,104.00	.80
Total Cost.....		<u>\$6,156.00</u>	<u>\$1.20</u>

Unit Cost of Finished Goods

Unit Cost from Processing Department (400 lbs. @ \$.31).....	\$124.00
Unit cost of baling operation.....	1.20
	<u>\$125.20</u>

Solution to Problem 3

Computation of Shrinkage—Our Production

Total purchases of raw material.....	2,080,000 lbs.	
Less:		
Inventory of raw material.....	200,000 lbs.	
Inventory of work in progress.....	80,000 lbs.	280,000 lbs.
Raw material used in finished goods.....		1,800,000 lbs
Sales 4200 bales @ 400 lbs. each.....	1,680,000 lbs.	
Inventory of finished goods, 75 bales @ 400 lbs. each.....	30,000 lbs.	
Total quantity of finished goods.....		1,710,000 lbs.
Raw material shrinkage.....		<u>90,000 lbs.</u>
The shrinkage is 5%.		

Computation of Number of Bales Produced

Sales.....	4,200 bales
Inventory of finished goods.....	75 bales
Contract goods:	
360,000 lbs. less 18,000 lbs. lost in process.....	855 bales
	<u>5,130 bales</u>

Computation of Baling Supplies Cost

Purchases.....	\$418,052.00
Less 2,080,000 lbs. @ \$.20.....	<u>416,000.00</u>
Cost of baling supplies.....	<u>\$ 2,052.00</u>

Solution to Problem 3

March Manufacturing Company
Statement of Cost of Goods Sold
For the Year Ending December 31, 1949

	Own Production	Contract Production	Total
Materials used:			
Raw materials purchased less inventory of \$40,000.00.....	\$376,000.00		\$376,000.00
Baling supplies.....	1,710.00	\$ 342.00	2,052.00
Labor and overhead:			
Processing labor.....	73,600.00	14,400.00	88,000.00
Processing overhead.....	110,400.00	21,600.00	132,000.00
Baling labor and expense.....	3,420.00	684.00	4,104.00
Total cost.....	<u>\$565,130.00</u>	<u>\$37,026.00</u>	<u>\$602,156.00</u>

Professional Examinations

271

Less:			
Inventory of goods in process (80,000 lbs. @ \$.25).....	\$ 20,000.00		\$ 20,000.00
Inventory of finished goods (75 bales @ \$125.20).....	9,390.00		9,390.00
Sale of salvage.....	9,900.00		9,900.00
	<u>\$ 39,290.00</u>	<u>—</u>	<u>\$ 39,290.00</u>
Cost of Goods Sold	<u>\$525,840.00</u>	<u>\$37,026.00</u>	<u>\$562,866.00</u>

March Manufacturing Company Statement of Income and Expense For the Year Ending December 31, 1949

	Own Production	Contract Production	Total
Sales.....	\$840,000.00	\$54,000.00	\$894,000.00
Cost of goods sold.....	<u>525,840.00</u>	<u>37,026.00</u>	<u>562,866.00</u>
Gross profit on sales.....	<u>\$314,160.00</u>	<u>\$16,974.00</u>	<u>\$331,134.00</u>
Expenses:			
Selling and general expenses.....			\$126,732.00
Interest expense.....			4,902.00
Discounts allowed.....			1,600.00
State income taxes.....			13,000.00
Federal income taxes.....			69,000.00
			<u>\$215,234.00</u>
Net Income.....			<u>\$115,900.00</u>

ASSOCIATION NOTES

E. BURL AUSTIN

ENGLAND

The Sixth International Congress on Accounting will convene in the halls of the Royal Horticultural Society, Westminster, London, in the week commencing June 16, 1952. Nine professional organizations will be host to the Congress. The sponsoring organizations represent England, Wales, Ireland, and Scotland. Further particulars will be issued in due course.

DISTRICT OF COLUMBIA

The George Washington University

GORDON E. BELL has joined the staff as instructor in accounting.

ALABAMA

Howard College

Career requirements in accounting were discussed before the Business Administration students in December by JAMES REGAN, JR., President of the Alabama Society of CPA's and WILLIAM C. JONES, President of the Birmingham Chapter of NACA. Senior accounting students at Howard College have an auxiliary campus chapter of the Alabama Society of Public Accountants.

University of Alabama

WILLIAM WHITNEY was appointed editor of the *Alabama CPA*, the quarterly newsletter of the Alabama Society.

S. PAUL GARNER presented a paper on factory inventory pricing at the Annual Louisiana Accounting Conference, Ruston, Louisiana.

The Fall CPA Review Course conducted by members of the accounting department was attended by candidates from six states.

Fourteen accounting majors are on internship training this year.

ARIZONA

University of Arizona

LOUIS MYERS has been granted military leave to enter active duty with the Finance Corps and has been assigned to Sixth Army Headquarters in San Francisco. He has been replaced by ELMER THIEMAN.

ALFRED NETTLETON has been appointed to the staff as assistant professor.

CALIFORNIA

University of San Francisco

EMMETT FOUNTY has been appointed lecturer in the CPA Review course.

A. D. MCNEIL addressed the California Society of CPA's on the "Impact of Current Accounting Trends on Business and Government."

University of Redlands

ROBERT H. SHERROD has been appointed to teach the accounting courses.

University of California at Los Angeles

FRANK P. SMITH of the University of Rochester and RALPH C. JONES of Yale University were guest professors in the 1950 summer session.

WILLIAM A. VATTER of the University of Chicago has been appointed to teach in the 1951 summer session.

W. E. KARRENBROCK was on a one-semester sabbatical leave this fall to make a study of the accounting curricula of twenty to thirty universities throughout the country. DAVID ALPERT served as lecturer in accounting during Karrenbrock's absence.

University of California

MAURICE MOONITZ participated in a program on Capital and Interest at the convention of the American Economic Association in Chicago.

FLORIDA

Florida State University

D. M. BEIGHTS has resigned to engage in private practice.

BOB SMITH has resigned to become a partner in a Tampa firm of CPA's.

D. M. BEIGHTS conducted a CPA coaching class at the University of North Carolina during the summer, and later at Jacksonville, Florida, under the sponsorship of the Florida Institute of Accountants.

University of Florida

A graduate accounting conference was sponsored in November by Beta Alpha Psi, Florida Institute of Accountants, and the University of Florida. The following University of Florida staff

members addressed the conference: CARL A. ANDERSON, WILLIAM R. MATTHIES, GEORGE E. FORTIN, and JAMES S. LANHAM.

The following members of the Florida Institute of Accountants gave addresses: R. M. LITTLE, M. EASTLAND, W. J. PLANTHABER, T. E. TRIPLETT, S. L. READY, H. F. PURVIS, L. MAGEE, R. S. BOGUE, and G. P. BLITCH.

GEORGIA

University of Georgia

JOHN DEAN received his LLB Degree in August.

H. M. HECKMAN delivered a paper before the Chattahoochee Chapter of the NACA on charts and graphs in accounting.

Emery University

H. H. HARDIN has returned to active military duty.

GEORGE GUSTAFSON has been added to the staff as assistant professor. He comes from the University of Michigan.

L. E. CAMPBELL has been re-elected secretary of Georgia Society of CPA's.

ILLINOIS

Southern Illinois University

MARY N. BARRON has rejoined the staff after a year of graduate study at the University of Michigan.

IOWA

University of Iowa

HARRY H. WADE has been appointed Head of the Department of Accounting to succeed SIDNEY G. WINTER, now Dean of the College of Commerce.

Drake University

DONALD W. BROWN recently passed the CPA Examination.

MICHIGAN

Michigan State College

BRUCE FUTHEY is on leave of absence serving as auditor for the Savannah River Operations Office of the Atomic Energy Commission.

University of Detroit

RAYMOND H. ZULAUF is acting director of the accounting department.

LOUIS W. MATUSLAK is an instructor in the department.

MINNESOTA

University of Minnesota

Added to the staff as instructors are SANFORD L. BACON from the University of Washington, KALO NEIDERT from Washington University, WALTER THARL from Denver University, ROY TUTTLE from the University of California, and DOUGLAS GIBSON from University of Minnesota.

Leaving the staff, having completed the major portion of their work toward a Doctor of Philosophy Degree are HECTOR ANTON (to the University of Washington) and RICHARD LUNDQUIST (to University of Illinois).

During the summer, JOHN WHEELER attended the International Harvester Educators' Conference, and CARL L. NELSON was in New York on a fellowship awarded by the Joint Committee on Education representing the American Securities Business.

CARL L. NELSON was recently promoted to professor of accounting.

JOHN WHEELER has been elected treasurer of the Twin Cities Chapter of NACA.

MISSISSIPPI

Mississippi State College

E. C. BROWN resigned in September to accept an accounting position in industry.

B. B. HOLLINGSWORTH has been elected Vice-President of the Auxiliary of the Mississippi Society of CPA's.

NEW YORK

Cornell University

WILLIAM H. SHANNON has been promoted to professor of accounting.

Long Island University

Guest lecturers before the student Accounting Society included WINTHROP L. SCHNIZER, WENTWORTH F. GANTT, and LEO SCHLOSS.

ARTHUR J. KNERR is on leave of absence aiding in reorganizing Commerce Education in the High School Society.

University of Rochester

FELIX KAUFMAN, formerly of Drake University, has been added to the staff as instructor.

FRANK P. SMITH spoke in November as a member of a panel, on critical evaluation of business administration programs, at a meeting of the Rochester Alumni of the Harvard Graduate School of Business Administration.

NORTH DAKOTA

University of North Dakota

DENIS B. FORD, JR., replaces JANE ANNE MEYER, who resigned to be married.

LUDWIK KULAS passed the CPA Examination.

JOHN A. STAPLES passed the State Bar Examination.

R. D. KOPPENHAUER has been appointed Secretary of the State Board of Accountancy.

NEW MEXICO

University of New Mexico

RICHARD E. STRAHLEM has been granted a one year leave of absence to become State Comptroller of New Mexico.

OKLAHOMA

University of Oklahoma

The first annual Income Tax Conference was held in December on the University campus. Over one hundred accountants and lawyers attended. Speakers included the following individuals: T. DWIGHT WILLIAMS, JOHN T. STEED, A. O. CHAMPLIN, ROY S. GODFREY, JOHN K. SPECK, RUPERT WILSON, and O. D. WESTFALL.

OREGON

University of Portland

Additions to the staff are T. F. MAGINNIS and J. R. WILSON.

CARL JORGENSEN has resigned.

JOHN A. WIESNER is on leave of absence for travel and study.

A. B. PETERSCHMIDT has been elected Director of Publications of the Portland Chapter NACA.

Oregon State College

STUART B. SEATON, formerly of Oklahoma A. & M. College, has been added to the staff as associate professor.

WILLIS G. PAGEL has gone to the University of Washington to work toward the Doctorate.

RALPH L. BOYD has been elected President of the Northwestern University Business Administration Conference.

WILLIAM ULRICH, who recently passed the CPA Examination, addressed the accounting section of the Pacific Coast Economic Conference, and also the Portland Control of the Controllers Institute, on the subject of distribution costs.

BYRON NEWTON and RALPH L. BOYD addressed a special workshop meeting of high school teachers on the teaching of bookkeeping.

PENNSYLVANIA

Pennsylvania State College

CHARLES J. ROWLAND is serving as Director of Publications of the Williamsport Chapter of NACA and as Secretary of the Harrisburg Chapter of the Pennsylvania Institute of CPA's, and is a member of the membership committee of the American Institute of Accountants.

JAMES E. LORDEMAN, JR., presided as discussion leader at the annual study forum of the Williamsport Chapter of NACA.

GERALD A. TEFFT has resigned to enter the business field.

PAUL BAIRD has been granted leave of absence to do graduate study.

The following have been added to the full time staff: THERMAN WISER, J. CARROLL, LLOYD CALLOW, JOHN PAUL DEVEREAUX, G. KENNETH NELSON, T. P. CZUBIAK.

Duquesne University

JOSEPH LUCAS has returned from a two year leave of absence.

FRANCIS KOHUT and MERLE GILLIAND passed the recent CPA Examination.

University of Pennsylvania

RUFUS WIXON is a member of the education committee of the Philadelphia Control of the Controller's Institute.

SOUTH DAKOTA

University of South Dakota

HARRY E. OLSON has been appointed a member of the State Board of Accountancy.

BERNARD D. PERKINS has been appointed Director of the Placement Bureau of the School of Business.

TENNESSEE

University of Chattanooga

FLOYD R. DUNN has been appointed special instructor in accounting in the evening college.

University of Tennessee

An institute on taxation sponsored by the department of accounting was held on the campus in November. EDWARD E. JUDY was director of the institute.

TEXAS

University of Texas

FRED W. NORWOOD has been appointed associate professor of accounting at Texas Technological College.

Of the fifty-five candidates for the Doctor of Philosophy Degree in the College of Business Administration, twenty-six are in the department of accounting.

Texas Technological College

FRED W. NORWOOD of the University of Texas has joined the staff as Associate Professor. H. G. TAYLOR has been recalled to active duty and is now at Fort Meade, Maryland.

L. E. SMITH has resigned as assistant to the president to enter public accounting.

North Texas State College

R. S. WOFFORD has been appointed instructor in accounting.

TOM ROSE presented a paper in March before the annual meeting of Southwestern Social Science Association on recent changes in audit procedure.



BOOK REVIEWS

ARTHUR M. CANNON

Cotton Textile Costs. 2nd ed. The American Cotton Manufacturers Institute, Inc. (Charlotte, N. C., June, 1950. Pp. 95. \$2.00.)

Before considering what this book covers, it might be well to consider what it does not cover. It is not an accounting manual for the cotton textile industry. There is no suggested uniform chart of accounts or description of an accounting system. Rather, this is a series of essays on the advantages of setting up and maintaining cost records together with illustrated explanations of cost standards peculiar to this industry.

The writer, Lewis Sawyer, staff member of the Cotton Textile Institute, starts with the basic premise that production is for the prime purpose of making profits. This is a reasonable assumption, albeit an elementary one, and serves as a sufficient reason for these essays. However, it left the reviewer with the impression that the author believes costs should be studied and standards established primarily in order to fix profitable selling prices. While the author does give some consideration to other forces at work in shaping a price policy, it seems that he places too much importance on costs as an influencing factor in the interplay of supply and demand. While minimization and control of costs are not omitted from reference as other possible objectives for a study of costs, they appear to be secondary in importance (p. 5). Some cost accountants would consider them first in importance.

Having stated his premise, the author then proceeds to a discussion of the essentiality of adequate cost records and the computation of standard cost denominators for the elements of cost—raw materials, direct labor, and manufacturing overhead expense. The introductory essay on the need for cost records was expressed in generalities with an occasional reference to the cotton textile industry (pp. 2, 6). This was disappointing to the reviewer who felt that more examples from the files of the Institute related to the problem would have added flavor to the book.

Once beyond the introductory chapter, the reader finds that the narrative runs more smoothly and with greater precision of thought. The chapters on *raw material costs* are worthwhile, especially the illustrations treating of the problem of waste. Few cost accounting text books treat the problem of waste adequately, beyond definitions and a few entries based on figures picked at random. While the illustrations in this book are hypothetical, they are pertinent. Also, the illustrations in each chapter are integrated with preceding chapters, making it possible for the reader to check the writer's logic and the source of data in subsequent chapters. The detailed computations of gross and net waste percentages (Chapter 3), and their uses in determining the amount of raw cotton required for a certain amount of production were clearly and interestingly set forth. These and many other illustrations offer valuable lessons in the applications of cost principles to the cotton

textile industry. Although concerned chiefly with cotton as a raw material, the author does not avoid the difficulties of determining costs when a blended product is being produced. Despite the complexities of computation, the examples of determining the material cost of a blended product can be followed with comparative ease.

In the case of *direct labor*, the treatment is less extensive than the material element of cost, in spite of the author's assertion (p. 27) that "it is larger than the aggregate of all the other manufacturing expenses." Possibly the reason for the inadequate discussion of labor costs is due to the problem of accounting for the variety of supplementary wage payments. These, by the way, the author considers as direct labor costs, rather than manufacturing overhead expenses. The total labor cost for each cost center including supplementary wages, is reduced to a percentage of straight time. This percentage serves as a standard multiplier for the ensuing period for each cost center.

The remainder of the book deals with the problems of establishing a budget for *manufacturing overhead*, the attendant problem of gauging the volume of production, the effect of machine speed upon fabric cost calculations etc. These problems are handled briefly merely to suggest their existence.

There are many points with which one could disagree with the author in principle, as for example his views on depreciation (p. 32), or on the allowance of interest on investment as a cost (p. 79), or on the treatment of over-absorbed burden as a contingency reserve (p. 85). On the other hand, there is much in this book that the student and teacher of cost accounting could use. In particular, the latter can enrich his lectures with specific examples drawn from a very important, cost-minded industry.

ROBERT G. ALLYN

Assistant Professor of Accounting

Western Reserve University

Corporation Course. (New York: Prentice-Hall, Inc., 1950. Pp. iv, 3318. \$15.00.)

Here we have a recent addition to the Prentice-Hall series of loose leaf service books in those fields of the law which especially require a knowledge of day to day developments.

In a handy volume, the subject matter of *Corporation Course* is divided into eight sections: (a) Index and Tables; (b) Guide to Corporation Practice and Procedure, with Forms; (c) Corporate Organization: Charter—Bylaws; (d) Directors: Officers: Stockholders; (e) Financing the Corporation; (f) Dividends; (g) Reorganization: Liquidation; and (h) Statutes. By paraphrasing some of the introductory paragraphs, the volume may be described as follows:

(1) It furnishes step-by-step guidance, with exhaustive check lists, for the promotion, organization,

management, financing, reorganization, or dissolution of a corporation.

(2) It outlines the procedures for proper tax management, the holding of directors and stockholders meetings, the declaration and payment of dividends, the adoption of a pension plan, and the determination of whether a foreign corporation must qualify in a particular state.

(3) It supplies detailed systems for keeping certain corporate records with a series of tested forms.

(4) It provides a clear explanation of the law with practical illustrations and examples, based on case law and statutes of the various states, with citations.

(5) It describes the duties and liabilities of officers, directors and stockholders.

(6) It delineates the fundamental bases of a corporation's power—its charter and by-laws—with specimen copies for study and analysis.

(7) It sets forth the effect of various federal laws, such as the National Labor Relations Act, Securities Act, Securities Exchange Act, and the National Bankruptcy Act, on corporate activities.

The student in business administration, accountancy or law can obtain from this volume a clear picture of the practical operation of corporate functions; teachers in professional schools will find it adaptable as a useful classroom text or as a special library reference work to correlate with classroom activity. The beginning lawyer or accountant will find useful liaison material between his academic training and the problems of practical experience. While the publisher, through this work, does not purport to render legal, accounting or other professional service, yet the busy corporation executive can acquire from its study a rudimentary knowledge of corporation law that will be of great assistance in developing a quick comprehension of the opinions of his professional advisers.

Even the experienced corporation lawyer or accountant would find this service a convenient and handy desk reference on numerous problems of corporation law and business routine and in affording a quickly determinable spot at which to begin a thorough study of a problem; especially is this true because of the cross references to the more comprehensive and exhaustive Corporation Service distributed by the same publisher.

Obviously this is not a "one semester text-book"; it is a loose-leaf reference service to be kept up to date, to meet the needs not only of professional schools but those also of later business and professional life.

BURTON ANDREWS
Professor of Law

Union University
Albany Law School

New Facts on Business Cycles. Arthur F. Burns. (New York: National Bureau of Economic Research, Inc., 30th Annual Report, 1950. Pp. 83.)

Statistical Indicators of Cyclical Revivals and Recessions. Geoffrey H. Moore. (New York: N.B.E.R., Occasional Paper No. 31, 1950. Pp. 95. \$1.50.)

Cyclical Diversities in the Fortunes of Industrial Corporations. Thor Hultgren. (New York: N.B.E.R., Occasional Paper No. 32, 1950. Pp. vi, 29. \$.50.)

The National Bureau of Economic Research, Inc., published last year its 30th annual report which contains material of considerable interest to the accounting profession. Economics in recent years to some extent has been getting away from the abstract, philosophical sphere to the practical, every-day business world and as a result economists are more in demand than before. They are also relying very closely on accounting techniques, as became quickly evident in our discussions together in the meetings of the Study Group on Business Income.

Dr. Arthur F. Burns, Director of Research, directs his annual report to a summary of what he calls "new facts on business cycles." Since the death of Wesley Mitchell of Columbia University, one of the greatest economists of our age, whose outstanding work was the development of his studies on business cycles, the National Bureau has continued this line of research. Dr. Burns says that "economic activities generally move in cycles—that is, wave-like fluctuations lasting from about two to ten years. 'Specific cycles' of this character appear in prices as well as output, in markets for securities as well as commodities, in the spending of incomes as well as saving, in the flow of goods to consumers as well as business enterprises. Of the hundreds of time series analyzed by the National Bureau, all but about three per cent have continuously undergone cyclical movements."

The most recent studies have been directed to breaking down the various time series and regrouping them so as to segregate those that usually antedate the movements of the larger group. These series indicate that in general business there are numerous contractions going on while general expansion is dominant and that numerous expansions begin while general contraction is still dominant. Speaking broadly, Dr. Burns says that "our results indicate that new orders, construction contracts or permits, stock prices and transactions, security issues, business incorporations, and hours worked per week tend to lead the tides in aggregate activity; so do the liabilities of business failures on an inverted basis. On the other hand, production, employment, commodity prices, imports, and business profits tend to move with the tides in aggregate activity; while income payments, wages, interest rates, retail sales, and inventories are laggards. These cyclical traits are not infrequently obscured or deflected by special circumstances, but when numerous time series and long periods are analyzed a tendency towards repetition in cyclical sequences comes clearly to the surface."

Various tables and charts have been prepared and are submitted showing the direction and amplitude of some of these selected series during a typical business cycle. This study is considerably amplified in Occasional Paper 31 by Geoffrey H. Moore, also issued last year. Mr. Moore has selected a number of series which he considers to be "statistical indicators of cyclical revivals and recessions." If we accept his conclusions, which seem reasonable to me, and can obtain current informa-

tion, it might be possible to forecast with more accuracy the future course of our industrial economy. I am afraid it won't, however, because we can't tell about such events as a war in Korea, the necessity for an airlift to Berlin, or what may happen in the "cold" war next year.

When we read quotations about the various dire forecasts made during and after the Civil War or in the depressions of the 1890's and the middle 1900's, our own problems today may not seem quite as extraordinary as we usually consider them. However, the impact of events in distant parts of the world was much less immediate and severe and it seems hard to be able to look forward in the immediate future to any kind of stability where past practice can form a basis for assured conclusions for the future. The studies of the National Bureau, however, should be most fascinating to accountants because they are directly in our field as well as in the economic field. Mr. Moore has succeeded in substantiating to my satisfaction the fact that there are a number of industries and companies which are expanding or contracting ahead of the large majority of business and these can be measured through some of his selected indicators.

One of the most interesting of his conclusions is that "the proportion of series expanding has invariably reached its highest point some time before the reference peak and its lowest point some time before the reference trough." In other words, the number of series expanding in proportion to the total starts to decline before the majority of the series reaches the peak. Likewise, on the down side the proportion of the series declining starts to decrease before the bottom is reached. Mr. Moore does not seem to be able to come to any definite conclusion as to the number of months' warning that this gives us, although he does say that "at peaks the leaders somewhat outnumber the laggards, at troughs nearly three times as many series lead as lag. It is evidently easier to find advance indicators of revivals than of recessions."

A tentative list is offered in table 12 of the leading group, as follows:

1. Business failures, liabilities, industrial and commercial, Dun's.
2. Industrial common stock price index, Dow-Jones.
3. New orders, durable goods industries, value, Dept. of Commerce.
4. Residential building contracts, floor space, Dodge.
5. Commercial and industrial building contracts, floor space, Dodge.
6. Average hours worked per week, manufacturing, Bureau of Labor Statistics.
7. New incorporations, number, Dun's.
8. Wholesale price index, 28 basic commodities, Bureau of Labor Statistics.

In conclusion Mr. Moore quotes at some length from Wesley Mitchell's warning of twelve years ago that no one can tell what the status of business is today or what it will be in the future, no matter how carefully previous trends and cyclical changes have been analyzed.

To return to Dr. Burns' annual report, the latter part of it deals with cyclical behavior of profits. He reports that "the proportion of firms experiencing an expansion of profits begins to decline well before the peak in total profits or total economic activity, and to increase long before the trough. In other words, develop-

ments in the sphere of profits that actually foreshadow reversals in the direction of aggregate activity are obscured when we view profits in the aggregate."

Thor Hultgren has expanded this phase of the study in Occasional Paper 32 entitled *Cyclical Diversities in the Fortunes of Industrial Corporations*. Mr. Hultgren shows that "when economic activity at large begins to rise, the number of companies with improving profits is rising and continues to rise during the earlier stages of the business expansion. Long before the decline in economic activity at large, however, the number of companies with improving profits begins to diminish. The fall in the number continues to the end of the expansion in business and on into the earlier stages of the following contraction. Long before economic activity revives, however, the number of companies with growing profits again begins to increase."

He goes on to state that "at every stage of the business cycle the fortunes of some companies, temporarily at least, ran counter to the main stream. The quarter by quarter data indicate that in the quarter with fewest rises during the great 1929-37 depression, 26 per cent of the corporations had rising profits. In the quarter of the 1920's most favorable to profits, 23 per cent had diminishing earnings."

PERCIVAL F. BRUNDAGE
Certified Public Accountant

Price, Waterhouse & Co.
New York

Introduction to Investments. John C. Clendenin. (New York: McGraw-Hill Book Company, 1950. Pp. viii, 604. \$4.75.)

This is the first really new and comprehensive textbook in investments that has appeared for some years. The book is aimed at personal and family rather than institutional or trustee investment problems. But the book is in no sense an investment primer, or treatise on "personal finance." It has substance, and Professor Clendenin has assumed that readers know something of corporate procedures and securities, as well as accounting, although a high degree of proficiency in these subjects is not required.

After a brief but excellent introduction there are sections dealing successively with corporate securities, the securities markets, analysis of corporate securities, public securities, other investments, and personal investment administration. The two introductory chapters are worthy of particular comment. The author plunges immediately into the subject of investments with a chapter on investment objectives. This is followed by a really excellent chapter on the basic determinants of investment value. Here is presented what may be called the present value theory of investment valuation, together with a discussion of interest rates and stock yields, the influence of the growing use of savings institutions, and of central banking policy on investment values.

The author is convinced that the investor cannot escape the market and that some concept of the behavior of markets is essential to good investment management. The five chapters dealing with securities markets are well done. There is included an entirely adequate discussion of both organized security exchanges and the

over-th
of spec
cussed
Dow J
ideas
ter is
discuss
ter on
in the
clear t
materi

The
well do
terial r
ties, in
suranc
analysi
these a
quant
materi

The
ment.
savings
and pr
ters on

Pro
vestme
high q
itself
proble
them
argum
study

The
a teach
two lo
each c
genera
of the
cluded
false a
ters. T
self-co
uals.

Th
and e
be wic
late fo

Un

Scien
(B
xii,

Ed
low fr
lows a
ing pr

Th
to mar

over-the-counter market. The chapter on the behavior of speculative markets is especially good. Here are discussed various theories of market behavior including the Dow Theory. These are presented merely as widely held ideas and not as proved facts. Also included in this chapter is a good treatment of formula planning. Why the discussion of formula planning was included in the chapter on the behavior of speculative markets rather than in the chapter on investment policy (Chapter 28) is unclear to the reviewer. But regardless of location the material on formula planning is succinct but adequate.

The chapters on analysis of corporate securities are well done. There is included sufficient descriptive material relating to such groups as railroads, public utilities, industrials, banks, investment companies and insurance companies for understanding of the problems of analysis. Specific appraisal methods are suggested and these are supported by thorough discussion of the non-quantitative aspects of security analysis. Illustrative material is characteristically brief but relevant.

The book is not concerned solely with security investment. Such non-security investments as life insurance, savings institutions, real estate, and foreign securities and property, are given adequate attention. The chapters on life insurance and real estate are especially good.

From the standpoint of the University teacher of investments, perhaps the best feature of the book is the high quality of the questions and problems. In the book itself there are from nine to twenty-two questions and problems following each chapter. These questions and problems are not generally of the memory type. Some of them permit definite answers, others raise issues for argument and opinion. They are well designed both as study aids and stimulants to class discussion.

There is also available to those who adopt the book a teacher's manual and a mimeographed set of twenty-two longer problems. The teacher's manual includes for each chapter in the text, (1) author's comments on the general objectives of the chapter, (2) a teaching outline of the chapter, (3) suggested answers to questions included in the text, and (4) a set of about twenty true-false and multiple choice questions based on the chapters. The mimeographed longer problems are in general self-contained and do not require use of security manuals.

The high quality of the book, and the completeness and excellence of the teaching aids, indicate that it will be widely used. Unfortunately, the book appeared too late for adoption for fall 1950 classes.

O. K. BURRELL

Professor of Business Administration

University of Oregon

Scientific Method for Auditing. Lawrence L. Vance. (Berkeley: University of California Press, 1950. Pp. xii, 108. \$2.50.)

Editor's note: Prof. Vance's book is first reviewed below from the standpoint of statistical theory; then follows a report on an actual application in public accounting practice.

The practice of examining or sampling a part in order to make a decision about a whole is widespread in audit-

ing. As long as no objective method is used in making decisions based on the sample, the auditor is in no position to know the risks of making incorrect decisions which he is assuming by using sampling techniques, nor can standards for professional performance be stated adequately. Here at last is a book which attempts to acquaint the auditing profession with an objective method that has been found extremely useful in other fields and which the author believes to be just as applicable in the area of auditing. This method is statistical sampling theory.

Professor Vance begins with an introduction to some statistical notions, in particular that of sequential sampling, and then immediately delves into the problems involved in applying these statistical techniques to auditing. The problems of appropriate sample size and of making decisions on the basis of the sample are discussed among other topics. Professor Vance proceeds to study in some detail how these techniques would be applied to specific areas of auditing—accounts receivable, inventory and payrolls, for example. Using the last mentioned item as an illustration, the auditor would first define errors in payrolls. He would then set an error rate which is satisfactory to him, say 0.5% and an error rate which is definitely unsatisfactory, say 3.0%. Lastly he would set the risks which he is willing to assume of accepting unsatisfactory work and of rejecting satisfactory work. Then by use of tables he can establish a sequential sampling plan and begin sampling the payroll records. Following this plan, he will either accept or reject the payroll records. In case of rejection, a 100% examination of the records, a qualified certificate, or refusal of a certificate may be some of the consequences. It is a feature of this plan that, by following it, the risks of making incorrect decisions will be those previously specified.

Professor Vance devotes some pages to a discussion of the aid which the use of statistical sampling techniques would furnish in setting professional auditing standards, and presents a brief section on the cost of auditing. He concludes his book by considering the problems involved in the actual selection of the sample, a subject of great practical import to the auditor.

One of the touchiest problems arising in the application of statistical techniques to auditing is the definition of an error. Professor Vance rather quickly dismisses the possibility of measuring errors quantitatively, and concentrates his attention on a "satisfactory" and "unsatisfactory" classification. To this reviewer, at least, it appears that his definitions of errors for various phases of the audit should be regarded only as tentative suggestions, and that actual experience will have to indicate the usefulness of various error concepts. As for the risks of making incorrect decisions which the auditor assumes Professor Vance tentatively suggests a maximum risk of 10% of accepting unsatisfactory work. This might be a little high for many auditors.

The sequential sampling method of making decisions is the only one discussed in this book. There may, however, be occasions when this procedure is impractical—e.g. in confirming accounts receivable. In that case, other techniques will have to be used to determine the sample size and decision-making rule.

The consideration of the cost of auditing is a subject

of vital importance to the auditing profession. One would therefore wish that Professor Vance had gone more deeply into this subject, especially as it relates to the cost of applying statistical techniques to auditing and to possible savings due to smaller sample sizes resulting from their application.

This reviewer believes that statisticians will object to several of Professor Vance's statements. Among these are discussions dealing with the power of a test and of the likelihood ratio (which term is used in place of sequential probability ratio) on pp. 4-7, 21-22, 25, and 86-87; with the changes in the decision-making rules if the sample should lead to rejection, on pp. 10-11, 17, 50, 54, 63, and 91; the statement on random sampling on p. 66; and the statement on stratified sampling on pp. 72-73.

These criticisms, it should be pointed out, do not belittle the main import of Professor Vance's contribution. His book is important because it introduces to the auditing profession certain techniques developed by another profession, pointing out their possible usefulness, analyzing some of the problems likely to be encountered and, in general, facilitating the process of transfer of knowledge. *Scientific Method for Auditing* is necessarily not a handbook which an auditor would follow step by step to apply statistical techniques to specific phases of the audit. Many problems remain to be solved. The auditor must first understand how statistical techniques can help him. This is where Professor Vance's book should find its useful place.

JOHN NETER
Instructor in Business Statistics
and Auditing

Syracuse University

See editor's note, above.

In every audit engagement the independent public accountant is faced with the question, "To what extent shall I test the accounting records under review?" Lawrence L. Vance has in his book *Scientific Method For Auditing* provided an answer to this question.

The purpose of this book as set forth in the preface is "to suggest specific procedures which will give auditing the benefit of objective statistical devices in the selection and interpretation of auditing samples or tests." These procedures which are dependent on the mathematical formulas developed in the book, not only answer the question as to the amount of testing to be done but also give the auditor a yardstick by which he can evaluate the condition of the accounts tested.

The book suggests several areas of accounting records and procedures to which statistical inference can be applied and also gives a few cases dealing with the use of statistical methods. These examples should be of great value to anyone who wants to apply the sequential sampling and likelihood ratio theory to practical problems.

This reviewer is attracted to the sequential sampling theory due to the fact that a definite position can be taken about the condition of the accounts tested on a purely mathematical basis instead of on a basis of opinion and that the extent of testing is not left to the hands of chance.

The statistical procedure suggested by Vance was applied by this reviewer and his associates in a recent large audit. Our samples were drawn from random number tables which spread our tests over the entire period covered by the examination rather than concentrating them in one or two areas of the period. Also, our approach to the sampling was on a new basis in that each item or transaction tested was given individual attention with the result that while the number of items tested was limited, we did a thorough job on each item and in some instances the tests were more meticulous and detailed than would have been possible if it were necessary for us to check large quantities of transactions.

We had a very interesting experience in connection with one section of our audit. After a very small number of samples it was apparent that we would have to qualify our opinion on that section of the report due to a particular type of error. This was discussed with the client who was willing to accept a qualification. In order to satisfy ourselves of the effectiveness of our random sampling we made further investigation of the type of error developed by our tests and it was found that a large number of the transactions in that section contained the same error and that our qualification was justified.

It was not necessary for us to develop new auditing procedures in order to use statistical procedures, however we did have to revise our techniques so that we could concentrate more work on each sample. It was also necessary for us to develop work sheets which would give the reviewer of each section of the audit a complete history of the random numbers used, procedures applied, etc.

One interesting observation with regard to the use of statistical procedures was its effect on the junior and semi-senior accountants who had to do much of the detailed checking. I have often felt that when the junior accountant is given a mass of documents to test such as cancelled checks, the junior after a few hours of test checking such items may become careless and is doing nothing more than testing by rote and if an error does appear, he may miss it or forget to list it in his comments on his test. With the use of statistical procedures we impressed upon all the men the importance of any error found and therefore they concentrated on each item inspected because they realized the importance of any error and they felt that they were doing constructive work which was an integral part of the entire audit.

In the opinion of the reviewer, the fact that each auditor may set his own standards in using statistical sampling methods should be emphasized and the author's specific suggestions, which are presented as tentative, should not be allowed to obscure this essential freedom.

In conclusion it is felt that the use of statistical sampling methods is a practical approach to the testing of accounts and will not only save the auditor time but will improve the quality of his audit.

CARL DECHOW, JR.
Certified Public Accountant

Oakland, California

Marginal Costing. F. C. Lawrence and E. N. Humphreys. (London: MacDonald & Evans, 1947. Pp. vii, 117. \$2.00.)

Marginal Costing is presented with the sincerity, urgency and evangelical conviction that so frequently is found in messages addressed "to the many and not to the few." In view of the audience the reader should not be unduly disturbed by the authors' impatience with opposing views, dogmatism to an extreme degree, and the substitution of assertion for argument.

The message is comparatively simple and the theme is familiar. Establishment costs are period expenses and not product costs. Net profit is the result of integrated enterprise activity, and it borders on nonsense to trace each increment of net profit "back to the production that is assumed to have created it." As a preliminary step the authors register a strong plea for accurate classification, and reassure the timid who are inclined to worry about non-linear relationships and irregular cost behavior.

Lawrence and Humphreys summarize their position in no uncertain terms. Under stable conditions: "Total costs are never correct. Because they have always to be adjusted:—(1) are incapable of being incorporated in clear statements of costs and profits; (2) slow down the production of periodic statements of cost and profit and loss." On the other hand: "Marginal costs are always true, and in fact are the true cost of production and of goods sold. They are always correct. They need no adjustment. (1) They give statements of profit that are clear and fully informative; and (2) speed up the preparation of detailed Cost and Financial Accounts." (p. 25)

The treatment of short-run pricing problems is excellent. A degree of imperfect competition is taken for granted, and little patience is wasted on accountants and businessmen who refuse to admit the relevancy of costs to pricing policy. "Supply and Demand," we are told, are the agencies through which prices are determined, and the publicity, salesmanship, management, estimating, costing and so on, are tied to the wheel—slaves of this inexorable law. Unqualified acceptance of such generalizations and platitudes breeds a complacency that denies responsibility for one of the principal functions of business management, *viz.*, price-fixing." (p. 72)

The authors admit that general demand conditions determine what segment of the price scale must be used, but they argue that considerable leeway remains within the general price scale. The price fixer uses plant activity reports and variable cost figures to quote prices that should keep operations at a reasonable level, and the resulting orders should be those that make the largest contributions toward recovery of fixed costs and the formation of profit, *i.e.*, in the words of a well-known engineering firm, those items with the highest P/V ratios.

The reviewer and many other accountants are on record as being, with moderate reservations, generally sympathetic to the marginal (responsibility) approach to costing and pricing. Widespread adoption of standard cost and budgetary systems has emphasized the advantages of fixed-variable classifications for cost control. Economists have until recently been almost unanimous

in recommending the use of marginal costs and revenues for setting short-run prices. Practically all accountants have had at some time serious doubts about the usefulness of their intricate assignments of fixed costs to products, territories, departments, size of order, marketing outlets, etc. There seems to be no limit to the distributions that ingenious accountants can make. Unfortunately the limits on the usefulness of such distributions are more immediate and restrictive than many apparently believe. With so many fertile grounds for objecting to fixed cost assignments it is disappointing to find the authors asserting: "... the Fixed Expense incurred has been exhausted in conducting the business as a whole during the period; there is nothing left to carry forward. . . . The whole of the Fixed Expense, therefore, should logically be allocated to what has been sold, as *that is the only source of revenue out of which to pay for it.*" (p. 45. Italics added.)

At best this assertion gives a peculiar twist to the widely-held doctrine of matching costs with revenues, and at worst it is a sharp retrogression toward a cash basis for accounting. The latter possibility deserves no comment, but the former raises an interesting point in theory.

The doctrine of matching expired costs with revenues does not supply a related rule to aid those who must perform the actual matching. The most widely used convention is based on the benefit assumption. Fixed costs, with the exception of outright losses, are expensed in the period during which the benefits from the expenditures are registered. Those that follow the benefit convention often insist that depreciation on peak-load equipment should be taken only when those facilities contribute to the revenue stream. Lawrence and Humphreys, and other period-cost advocates, are at the opposite extreme and appear either to abandon the benefit convention or to feel that the services are received from fixed costs on a straight time basis. It is interesting to observe that most cost accountants follow a middle course by deferring only the portion of fixed costs that may reasonably be expected to be recovered from customers through a normal markup on unsold goods. It is unfortunate that the authors have elected to defend their position by such a series of statements. It is not necessary to hold that fixed costs are "period expenses" in order to establish the usefulness of marginal costing for pricing and for cost control.

A revolution in cost accounting may well be under way, and, if so, Lawrence and Humphreys will certainly be remembered for their contribution to marginal costing. Cost accountants in the past, however, have been neither effective nor enthusiastic revolutionists.

CARL THOMAS DEVINE
Professor of Accounting

University of Southern California

Shares of Upper Income Groups in Income and Savings. Simon Kuznets. (New York: National Bureau of Economic Research, Inc., 1950. Pp. 68. \$1.00.)

Inequality in the distribution of income among individuals is of tremendous importance in attempting to draw inferences concerning economic welfare and in ex-

plaining the social behavior of individuals with the consequent implications thereof for political and economic development. This paper, which is a summary of a two volume report under the same title now being prepared for publication, is a further extension of the author's pioneering efforts in the measurement of national income into this relatively unexplored area of income distribution by size. Ideally, one might hope for an enumeration of the number of incomes in each range of income size, the summation of which would provide an independent estimate of national income, thus enabling a detailed examination of income distribution throughout the entire income range, and, at the same time, permitting a check with estimates of national income arrived at through alternative approaches. Unfortunately, that omnipresent obstacle to empirical advance—paucity of data, which is most acute in this area (and chiefly accounts for the large clouds of ignorance veiling this subject despite its vast significance), has confined the author to the more modest objective of measuring the income shares of the upper income groups alone.

Even so, the results, arrived at by comparing incomes as reported on federal income tax returns with (separately derived) estimates of national income for the period 1919-1947 (in a few cases, 1913-1947), are quite striking. For 1919-1938, the top 1 per cent of the population received on the average, 15 per cent of total income (excluding capital gains and before taxes), the top 5 per cent, 30 per cent of income. The average shares of upper income groups were greatest in total dividends (65 per cent going to the top 1 per cent), and lowest in employee compensation (6.5 per cent for the top 1 per cent). The figures further reveal a substantial decline in the relative shares of the upper income groups in total income from 1939 to 1945, from over 13 per cent in 1939 to 9.5 per cent in 1945 for the top 1 per cent group, and from over 28 to 19.5 per cent for the upper 5 per cent group, and preliminary figures reveal little recovery through 1948. The drop is even sharper when capital gains and taxes are taken into account.

The extent to which the results are affected by certain statistical characteristics (the recipient unit used, the scope of income, etc.) is investigated. More important in interpreting the findings, however, is the author's examination of the social characteristics of the upper income groups, which, in general are found to include "more persons at productive ages, with higher formal education and experience, and consuming units whose place of residence entails high costs of living." A plea is entered for a recognition of a given inequality in income distribution, not as good or bad in itself, but rather as a manifestation of structural differences in a nation's economy.

Of particular interest to business cycle analysts is the discovery that the relative shares of the upper income groups remained fairly stable during business cycles in the interwar years, a slight tendency toward counter-cyclical variation being suggested. The implications of this for individuals' savings are then explored, which in turn entails an examination of the variability of the savings-income ratio for the upper groups as compared to the lower. It is found that the former varied much less relatively than the latter during business cycles,

which, together with the finding that the income shares of the upper groups remained fairly stable, leads to the following conclusions: (1) Savings of the upper income groups as a percentage of total income of individuals remained fairly constant during this period, and, hence, the large fluctuations in the savings-income ratio for the community as a whole must have been due primarily to sharp changes in the savings-income ratio for lower groups. (2) The relative share of the upper income groups in total individual savings varied counter-cyclically. The implication of the latter conclusion for the manner in which the composition of the total flow of savings changes during business cycles is hinted at, but not examined.

Critical evaluation of these findings must, of necessity, await the forthcoming report, which will permit a more exhaustive examination.

RICHARD A. EASTERLIN
Instructor in Economics

Wharton School of Finance and Commerce
University of Pennsylvania

National Income Statistics of Various Countries, 1938-1948. Statistical Office of the United Nations. (Lake Success: United Nations, 1950. Pp. vii, 249. Sales No. 1950.xvii-2, paper \$2.50, cloth \$3.50.)

This is at once an essential reference book for studies in international economics and foreign trade, and a progress report by the Statistical Office of the United Nations on their work in national income estimates.

As a reference work it supplements a 1948 publication, *National Income Statistics of Various Countries, 1938-1947*, which gives a survey of national income statistics for fifteen countries not covered in the present publication. The data for eleven countries are included in the 1938-1948 volume but not in that of 1938-1947. For twenty-one other countries the new book provides material additional to or superseding that of the earlier publication. Estimates for a few other countries are included in an appendix with a minimum of explanation.

The principal statistics are arranged alphabetically according to nation in chapter 3 which represents roughly 70% of the volume. These constitute a useful collection of materials with a limited amount of explanatory text and definitive notes. Nearly all are taken from publications of the respective countries. In each case there is a full statement of the sources to which the reader may refer.

As a progress report, the book reflects the work of the Statistical Office in the direction of providing comparable international data in the field. The book also reflects refinement and revision of old series by official and unofficial estimators in the various countries, and the development of series not hitherto available.

In addition to publishing available official and some unofficial estimates, the Statistical Office has included a chapter proposing adjustments to make the estimates of the various countries conform to a more uniform definition which is also proposed. This is a particularly desirable and important contribution because national income data are used for international comparisons and incomparability of the data may often render com-

parisons worse than useless. This is not to say that the Statistical Office has been successful in all cases in developing comparable totals, but the results are more nearly comparable and the nature of remaining incomparabilities are indicated. Further work by the Statistical Office will presumably add to this information relative to comparability or the lack of it.

The character of the book forces the authors to take positions rather than to make it a vehicle of controversy. Nevertheless, both conceptual and terminological differences among the various income estimates make it necessary for the Office to include a nineteen-page chapter on conceptual problems including two pages of definitions. A careful technical student will find the volume lacking in much of the detail he would desire, but the more general user of statistical material may be encouraged by the brevity of the textual material to inform himself more adequately than he otherwise would concerning the material he uses. It is to be hoped that the result will be less irresponsible use of important data.

A succession of annual volumes such as this could in time create some confusion from the necessity of referring to all issues in order to obtain a full record of available data. A compendium issued every five years, perhaps oftener, and presenting all available official data (with appropriate unofficial material where official data are lacking) on national income would be a valuable contribution by the Statistical Office. No other agency is as well fitted to do such a job and it will surely be needed.

PAUL W. ELLIS
Associate Professor of Economics

University of Oregon

Punched Card Accounting and The Professional Accountant. J. Sandford Smith. (London: The British Tabulating Machine Company, Ltd., no date; distributed in U. S. A. by Counting House Publishing Company, Thiensville, Wisconsin. Pp. 39. \$1.00.)

Although this book is published by The British Tabulating Company, Ltd., the author has made it very clear that his thoughts as presented have in no way been influenced by the company. The pros and cons of punched cards as presented bear out this contention. In this rather short paper, the author has set the stage for his discussion by highlighting the changes in accounting techniques and requirements over the past several decades, which have necessitated an increasing amount of mechanization in these practices today. His discourse, as the title implies, only covers one form of mechanization, with the purpose of guiding the individual accountant in determining whether an accounting application might be considered for punched card handling.

In the introduction, the factors which determine the proper "methods" approach to any accounting problem are outlined; namely, management's requirement for control and forecasting information, the chief accountant's ability to use his staff to handle the method prescribed, and the supplying of information for the auditor to complete his function. Before presenting the attributes of punched cards in meeting the above three

requirements, there is a discussion of punched card accounting in an effort to dispel several misconceptions that punched cards are primarily for statistical purposes and that the holes in the cards are queer or unfathomable. For the initiate, there is a brief discussion of each functional group of punched card equipment and the principal features of each group.

From a management standpoint, the requirements have developed along three bases; of scope, form, and time. With management operating more on a planning basis than on an investigation basis, the premise is taken that punched cards are especially adapted to these three management requirements, for their flexibility allows the presentation of information to the individual in management on a selected basis, covering only the scope of his interest or responsibilities, in practically any form he may desire for presentation, by the fastest mechanical means. For management, it is also pointed out that there are distinct advantages in renting machines, allowing variations in administrative costs comparable to variations in business operations, and eliminating the necessity of tying up capital or keeping obsolete machines because they have not yet been written off.

In discussing the chief accountant, an interesting observation is that there are few "half-hearted" advocates of punched card equipment among this group. They are usually either enthusiastic for equipment or dead-set against it, either of which attitude can be dangerous. However, where the head of the accounting department will review the requirements of his department and the operation thereof on a logical basis, and volume warrants, punched card equipment should simplify the planning aspects of his job. With proper planning around the equipment, it is contended that a smoother type of operation can be developed, reducing peaks and pressures.

The principal requirement for the auditor is that he be able to trace any given transaction through the records. This requirement is particularly well-met with punched cards by preparation of lists from the cards, which can be referred to in substantiating total entries to accounts. Such lists actually assist the auditor over other techniques where multiple postings in various files and ledgers complicate the search. At the same time, falsification is made more difficult by the fact that it would require collaboration of the accountant and the machine room supervisor. The handling of adjustments and machine errors from an audit standpoint is also discussed.

The last portion of this book serves as a guide to the accountant who must be concerned with the machine installation itself. The approach covers two distinct conditions: first, where an installation is being made; and second, where it is desired to improve an existing installation. In both instances, the discussion is very concise and highlights the major principles which should be observed. In the case of the new installation, the primary guide is a proper definition of the principal objective, while in an existing installation, it is a complete knowledge of the scope of work which is or might be put on a machine basis. Having defined the conditions, it becomes a matter of applying certain rules to determine

the best methods and adherence to them, with continued good operation being assured by re-analysis and testing.

ROBERT H. GARRETSON
Branch Manager

International Business Machines Corporation
Honolulu, T. H.

Graphic Budgets. W. J. Eiteman. (Ann Arbor: The Masterco Press, 1949. Pp. 107. \$2.50.)

This book describes budgeting procedures and illustrates the usual schedules, and then contrasts these with graphic portrayals of the same information. The idea of using a graph is not new, of course, but this reviewer believes that this is the first attempt to present *all* schedules by graphs. It is designed to serve "... engineers, lawyers, managers and others . . .," those whose accounting knowledge is less complete than that of the professional accountant. It does not represent an attempt to replace conventional budgetary procedure but rather to make "... budgetary statements more intelligible to management."

The first three chapters offer an introduction, a brief discussion of graphs and a summary of conventional procedures. Next, there is presented a good, short chapter on the construction of a break-even chart.

Chapters 5 and 6 (43 pages) are the backbone of the book. They deal with Graphic Budgets for Current Assets, and Management of Working Capital, respectively. The former covers cash, accounts receivable, and inventories all quite thoroughly, and accounts payable somewhat briefly. The latter chapter is an interesting graphic treatment of working capital needs and uses. It is very worthwhile. Long-term working capital needs are also treated graphically.

Replacement of Fixed Assets is presented in the next chapter but in the words of the author, "One cannot predict replacement needs by graphic budget methods but one can, by the use of graphs, gain a better understanding of the problem of replacement and expansion." This reviewer doubts if this chapter will "make more intelligible to management" the above problem.

In the next to last chapter some limitations in break-even analysis are discussed. These limitations center around multiple products. It is admitted that "break-even charts do not predict when too many dissimilar products are involved." A brief concluding chapter ends the book.

Several points as presented could be argued but on the whole the procedures described are sound. Each budget item is graphed and then actual results are recorded on the same graph. As would be expected, a book of this size does not present much detail. Some of the detail omitted seems rather important, e.g. lack of emphasis of budgets as a control device and exceedingly brief treatment of semi-variable expenses.

The book is clearly written with good illustrations. The proof reading was poor. At least four typographical errors were noted and one further error involved three lines which were entirely misplaced. The printing is good. There is no index or bibliography.

The book should be useful to both budget makers and management. It has a place in the business school

library as a supplement to a full discussion of the subject of budgets.

JAMES M. MOYNES
Associate Professor of Accounting
University of British Columbia

A Reconstruction of Economics. Kenneth E. Boulding. (New York: John Wiley and Sons, Inc., 1950. Pp. xi, 311. \$4.50.)

The author has four objectives. The first is to contribute to the integration of economics with the other social sciences, and eventually with all other sciences. The second is to incorporate the theory of asset preferences into the theory of the firm and the theory of consumer behavior. The third is to clarify macroeconomic analysis by emphasizing the distinctions between real and monetary processes. The fourth is to contribute to macroeconomic analysis an appropriate theory of distribution.

The book is divided into two parts, the first devoted to *micro*-economic topics, and the second to *macro*-economic topics. The first of the author's objectives is pursued in the first two chapters of the book; these chapters deal with an interpretation of economic changes in terms of the population analysis of general ecology. The rest of Part I deals with asset preference theory, in relation to a wide range of problems facing individual consumers and managers. According to the author, conventional theory is cast in terms of individual indifference curves connecting quantities of an individual good on the one hand, and quantities of money on the other. The indifference map is considered invariant with respect to the price of the given good (i.e., with respect to the opportunity curve pertinent to movement on the map). The author urges that the price of the given good ought to be introduced into the indifference functions. During much of his work he suggests that the preferred asset ratio (fraction of the value of total assets the individual wants to hold in the form of the given good) be assumed a constant.

From this change in the formulation of individual behavior, the author draws several noteworthy conclusions, among them the following: 1) the compensation payment essential to certain forms of welfare economics becomes meaningless, since the ability of any monetary payment to compensate for an unfavorable effect depends on the price of each good relevant to the analysis; 2) if profit is defined as the difference between total revenue and total cost, a manager will not ordinarily maximize profit—instead he will maximize the increase in the net worth of the firm. The difference between the concept of profit as revenue minus cost and the concept of profit as increase in net worth lies in the treatment of change in value of inventory; 3) a lump sum tax on a firm will change its sales, even if it does not change its output. The imposition of the tax reduces the cash part of the firm's assets, and so induces the manager to increase his sales, reducing inventory. Thus a lump sum tax tends to reduce price.

Part II begins with conventional discussion of cautions in dealing with aggregates; the theory of payments; and the theory of output and employment. (The

separation of the theory of payments from the theory of output and employment is in pursuance of the author's third objective.) The chapter devoted to a macroeconomic theory of distribution begins with balance sheets for firms and households, and proceeds to the development of identities connecting these balance sheets. The chapter is concluded with models illustrating the determination of an equilibrium level for the wages share of national income.

A chapter on the economics of government is concerned with the connection between government absorption (goods purchased by government) and inflation; the principal result of the chapter is the "principle of overfinance": an increase in government absorption during full employment will have an inflationary impact even if it is completely financed by increased taxes; it must be "overfinanced" if there is to be no inflationary effect (p. 293). The book is concluded with two policy suggestions: 1) it may be desirable to increase the government's share of total absorption, so that total activity can be influenced more easily by fluctuations in government activity; and 2) in a stationary state we can choose the percentage of income going into profits; "In general it can be laid down that the proportion of national income going to profits should be at the minimum consistent with efficient operation of a free enterprise system" (p. 307).

Integration of science is given a curious meaning; the first two chapters translate economic propositions into the language of general ecology. There is no further treatment of integration, except for some remarks (pp. 166-7) that could have been made at the end of chapter 2 as appropriately as at the end of Part I.

The author writes (p. viii) that he has tried to introduce the balance sheet as the central analytical concept of the firm, and to introduce asset preferences as a central concept in explaining the behavior of all economic organisms. This change is important for both the micro- and the macroeconomic parts of the book. We shall consider its microeconomic implications here, and its macroeconomic implications below, in connection with the author's theory of distribution.

The author's contribution to microeconomics is significant. He incorporates liquidity preference (the only form of asset preference with which he deals) into the theory of the firm and the theory of consumer behavior more thoroughly than anyone has done previously. Most of Part I is devoted to this process. The author's ability to manufacture useful diagrams facilitates his exposition greatly. In the theory of the firm, his analysis provides a second approximation to reality, the first having been associated with profit maximization. A great deal of the merit of the book is concentrated in chapters 3 through 9, in which the elaboration of this second approximation takes place.

The author's conclusion about the foundations of welfare economics appears to be invalid. The difficulty is alleged to be that of deciding on a price at which to value any product lost through loss of opportunity to trade. The part of modern welfare economics that relies on the payment of compensation probably has only limited usefulness, because it would be impracticable to gather the information necessary for determining each

person's tax or compensation. But the valuation of product presents no problem, if we ignore the problems connected with the selection of a reference distribution of income. Suppose we wish to compensate a person for our moving from price-situation 1 to price-situation 2. Some amount of money added to the amount that he would otherwise have in price-situation 2 will restore his indifference index to the value at which it stood in price-situation 1. Since the man must live in price-situation 2, clearly the amount of money must be determined on the basis of the individual prices constituting price-situation 2.

The author's macroeconomic theory of distribution is based on the differences between the propensities of firms and households. Its concept of equilibrium is similar to that developed recently by J. M. Clark (*Guidesposts in Time of Change*, Chap. VI). However, the present author goes on to derive certain "paradoxical" results. He writes wages as

$$W = C_h + dQ_h - T \quad (15a)$$

where C_h is household consumption (retirement of consumers' goods, which are assumed to be replaced), dQ_h is the accumulation of goods in the hands of households, and T is a transfer payment. Profits are written as

$$V = dQ_b + T \quad (15b)$$

where dQ_b is the accumulation of goods in the hands of firms. T is broken down as follows:

$$T = dM_b + dK_b - dK'_b + D \quad (17)$$

where dM_b is the increase of money in the hands of firms (the total quantity of money being constant), dK_b is the increase in households' indebtedness to firms, dK'_b is the increase in firms' indebtedness to households, and D is dividend payments (pp. 250, ff.).

The author's "paradoxes" proceed from his treating each item in T as though it were unrelated to anything else in the equations reproduced. Thus he states that an increase in installment credit will reduce the wage share of the national income, since it will increase dK_b . But goods also move, so that dQ_b is reduced, while dQ_h is increased. Similarly, the author indicates that the sale of securities will reduce profits and increase wages. But the securities are paid for, so dM_b rises as dK'_b rises. The author's "paradoxes" seem to be errors.

An emotional bias appears disconcertingly in the author's policy recommendation (quoted above) pertaining to profits in a stationary state. As economists, we could as properly propose that wages (instead of profits) be reduced to the minimum consistent with the efficient operation of a free enterprise system. Presumably we cannot espouse either of these objectives while maintaining scientific objectivity.

The book's shortcomings appear to be due largely to straining for the effect of novelty. However, the writing is engaging throughout the book, and much of Part I represents an advance in the analysis of economic behavior.

J. A. NORDEN
Associate Professor of Economics

Iowa State College

Publications in Stock

I. MONOGRAPHS

No. 1, 2 and 4 Out of stock.

No. 3 AN INTRODUCTION TO CORPORATE ACCOUNTING STANDARDS, by Paton and Littleton. (Reprinted in February, 1951) (\$1.10 per copy, including postage.)

II. BOOKLET

ACCOUNTING CONCEPTS AND STANDARDS UNDERLYING CORPORATE FINANCIAL STATEMENTS—1948 Revision. (Reprinted on March 15, 1950.)
(10¢ each for first 10 copies—5¢ for each additional copy.)

III. PROCEEDINGS OF THE AMERICAN ASSOCIATION OF UNIVERSITY INSTRUCTORS IN ACCOUNTING

(Predecessor of the American Accounting Association.)

(\$1.10 per copy, including postage.)

Vol. I, No. 1 May 1917

Vol. III, No. 1 Jan. 1919

Vol. V, No. 1 Mar. 1921

Vol. VII, No. 1 Apr. 1923

Vol. VIII, No. 1, June 1924

Vol. IX, No. 1, Feb. 1925

Vol. IX, No. 2, Dec. 1925

IV. THE ACCOUNTING REVIEW

(\$1.50 per single copy including postage—No charge for index.)

	March	June	September	December	Index
1926	X	X			
1927		X	X		
1928					X
1929	X	X	X	X	X
1930			X		
1931	X	X		X	
1932		X	X	X	X
1933	X	X	X	X	X
1934	X	X	X	X	X
1935	X	X	X	X	X
1936		X	X	X	
1937		X			
1938		X	X		X
1939		X	X		X
1940	X	X	X	X	X
1941	X	X	X	X	X
	January	April	July	October	Index
1942	X	X	X		X
1943		X	X		X
1944		X		X	X
1945		X	X	X	X
1946					X
1947					X
1948			X		X
1949					X
1950		X		X	X
1951	X	X			X

V. MEMBERSHIP ROSTER

1950 rosters are available at \$2.00 per copy.

Add 50¢ for orders outside of the Continental United States

AMERICAN ACCOUNTING ASSOCIATION

College of Commerce and Business Administration

University of Illinois

URBANA, ILLINOIS

